

Original Correspondence.

COAL CUTTING BY MACHINERY.

SIR.—Since this subject was so nobly brought forward by Mr. Waring, at the Institute of Engineers at Swansea, and having been the means of much discussion since, perhaps it might be interesting to some of your readers to know that there is already coal-cutting machines at work at the West Ardsley Colliery, near Leeds, which give every satisfaction to the inventor, the difference in the work done between the machines and hand-power is more than 50 per cent. in favour of the machines at present, but this company expect greatly to improve very shortly, as they have other machines in course of making which, when complete, will far supersede the present ones, although precisely on the same principle, but with such improvements introduced as practice has suggested. In carrying out the several experiments the power applied to work the machines is compressed air; this we find a most suitable kind of power for the general working of the mine, for it not only drives the machines effectually, but also assists to ventilate the mine at the several places where the machines work. The exhaust air always being at the freezing point when leaving the machines, it is compressed at the top of the pit by a 35-horse power engine to a pressure of from 45 lbs. to 50 lbs. per square inch; it is forced into a reservoir, then taken down the shaft in suitable cast-iron pipes to a depth of about 175 yards, and then conducted in other suitable pipes to the several districts to be worked. Attached to each machine is a suitable length of elastic hose pipe, to allow the machine to travel along the face of the coal to be cut or holed. The whole distance from the air reservoirs at the pit top to the several working places of the machine is 1000 yards, and there is not the least perceptible loss of power in carrying the air this distance.

West Ardsley Colliery, Morley, Leeds, Oct. 15. R. RIDLEY.

"STALL AND PILLAR" v. "LONG WALL" SYSTEM—No. II.

SIR.—It appears strange that anyone professing to be a practical coal miner should attack the stall and pillar system. It appears to be the very foundation of coal mining; and whether we look at the quantity of coal produced from a single pit, the amount of air circulated in a given time, or the economy of working, it is without doubt by this system that the greatest triumphs in coal mining have been achieved. But apart from this, whatever system may be ultimately adopted in getting the coal in any particular seam or colliery in the remote districts, or at any rate after the workings are properly developed, the commencement must be made by boro and pillar. The foundation must be laid by the most improved system of boro and pillar working. The long work cannot be commenced at the shaft if the colliery is to be at all extensive, and it is useless writing about places to produce (say) 100 or 150 tons per day. A considerable quantity always gives great advantages on the score of economy of production.

We have now to give some account of a pillar and stall pit in the county of Durham of medium size. First, the depth is 115 fms., or 230 yards. The thickness of the coal is 4 ft. 6 in. The full extent of the workings is $\frac{1}{2}$ mile to the furthest extremity on one side. A moderate sized hauling-engine is used for the purpose of bringing the coals from this side, and on two more sides, horses are used for bringing the coals out, the distance only being 500 and 700 yards respectively. The workings are systematically laid out in separate panels or districts for working, each panel being 360 yards in length and 270 yards in breadth; the boro being 4 yards wide, thus leaving a pillar 30 yards by 14 yards; each district being ventilated by a distinct split or current of air. The current of air being carried along the face in the first instance, and into every working boro by means of brattice, every man has abundance of fresh air. Immediately behind the working face the pillars are removed by means of "lifts," or slices, each 7 yards in width. The air is carried along those pillar workings, also sweeping past the edge of the goaf, so that the gases produced are carried off at once, and the men here have pure air also. Now, by this system of working 92 per cent. of the seam is got, only 8 per cent. being lost in the goaf in the shape of "stocks," &c. Every working place is properly supplied with air, and every roadway for the ingress and egress of the men and the conveyance of the coals is properly protected by means of strong pillars of coal. The coal is soft, and it is a clean seam—that is, the whole of the coal, both large and small, is filled and sent to bank, as most of the coal is disposed of as gas coal. There is no small left below, and but little to be seen at bank. In working in the boro and pillars the coals is worked by carving, or haling them term it in the South, exactly in the same way as practised in long work. Now, this is principally used as a gas coal, but not solely, good sized coal being got for London sale by the same process, and the majority of coals in the North, both house and steams coal, are worked in the same way, and large coal got. What have we here to prevent it? The only tangible objection we have is the "nicking," or cutting, one side of each boro where the coal is strong; and as only 20-74 per cent. of the coal is got in the boro, and 92 per cent. of the seam is got, 71-26 per cent. is got in the pillars, and here both sides are loose, and only haling is required, the same advantages are, in fact, met with for getting large coal in the second stage, or pillar working, as are enjoyed by long work; and as the pillars are strong, no crush is met with from the roof. We have now given a rough sketch of the mode of working, and we give the cost at per chaldron 9s. 6d.; per ton, 3s. 7d. That is the actual cost of putting the coals into the wagons at surface, 440 tons per day being worked.

Now, I would ask what advantage would be gained by working this seam by long wall, if the roof would admit of it? The only point I can see is the saving of narrow work, and the greater simplicity of the latter mode in one respect only—that is, by taking the coal away by one operation instead of two. But against the narrow work prices and shift work in the pillar working, we have the cost of making and maintaining the gateways to take into account; and we strongly suspect that if this were fully gone into an equation would be formed that x would be equal to y . Now, the cost of narrow work in such a panel as we have described amounts to 1-40 farthing per ton on the whole quantity of coal got in such panel. Mr. Shepherd will be able to tell us how far this coincides with the cost of the gateways. We have also the increased danger and risk to life attending the working of coal by a large open face from 50 to 500 yards in width, with a dangerous goaf behind, where gas is very often accumulated, and also permanent roads to make and keep through such goaf, which we contend is not so safe and economical as the other mode, where adequate support is always left in the shape of strong pillars of coal; but more on those points hereafter.

We have now to show that "long work" was tried in this seam, and why it was a failure. A width of 60 yards was first tried; props and also plenty of wooden chocks were used to keep the roof between the goaf and the face; the coal was worked to the dip first, and then to the rise. It must be borne in mind that here there is nothing to stop with in the space excavated. All depends upon the roof falling, and keeping the fall from extending to the working face. All was managed pretty well, with this exception—the roof being composed of black shale, holding much gas (that is, immediately over the coal) it would break between the props and the face, and pour in, so as to require constant extra work, and also working past it again in the coal; every means were tried to prevent this, but without effect. The props and chocks were put so close as within 2 feet of the face of coal, yet the roof would break in, so that, per force, the pillar and stall system was again resorted to. The roof was not strong enough to allow working by long wall.

We will now refer to long work, as shown by the paper of Mr. Woodhouse, read at the Birmingham meeting of the Northern Institute of Mining Engineers. The writer says, in describing long work at the Shipley Colliery, page 126—"The ventilation is of the most simple kind, the current running on the main road, and returning to the upcast along the faces." And—"In the year 1850 an outburst of gas occurred in the floor of the east face. A large quantity of gas came out of the thill, or clunch, heating it up in the manner of rapid creep. The gas found its way to the furnace, and fired there, killing the furnace man, who was the only man in the pit at the time, smashed the doors, and burst stoppings, but did not kill the horses." Another heavy outburst took place in 1857, "when the gas fired at the candle of a hewer in the west face, killing two men, and injuring two more." After this safety-lamps were exclusively used, and a dumb drift adopted to prevent the gas firing at the furnace. "Three heavy outbursts of gas have occurred since that time, firing heavily in the lamps."—"The main point to be noticed is the fact that the whole pit is frequently examined in every place where gas could possibly be found, without any being discovered for months together, when suddenly a whole district becomes charged."

We merely make these extracts from Mr. Woodhouse's paper to show the absurdity of Mr. Shepherd's remarks as to the greater safety and salubrity of long work for the workmen. The fact is exactly the reverse: Mr.

Woodhouse distinctly states, during the discussion that followed the reading of his paper (and he has had most extensive experience), that many more accidents occur from falls of stone, &c., in long work than is found to occur where the other system is followed. The whole of this discussion at Birmingham on the paper of Mr. Woodhouse is well worthy the most careful perusal. It is extremely instructive on these points of working by long work or pillar and stall.

However, the objections we have to urge against long work in a seam producing gas are briefly as follows:—1. The face is generally carried to the rise, and, consequently, any gas produced from the strata in the goaf at once finds its way to the face, and if candles are used of course there is great danger. Again, the gas is carried from one point, or set of workmen, direct to others, and so on through the main workings of the colliery; and also by a short route to the furnace, where there is danger of explosion, as in the instance given in Mr. Woodhouse's paper.—2. By the system of gateways and long faces, doors are required to keep the air to the extreme ends, no less than 46 doors are to be found in one of those places already noticed, and 43 in the other.

This is a very objectionable mode of working and ventilating, as the neglect of any one of those doors might be of serious consequence, and any explosion occurring by this system will be far more likely to become general than pillar and boro working, where the coal is divided into districts. So that if we presume that where the roof and every other circumstance is favourable for long work it should prove to be most economical (which we very much doubt), still the system wants to be greatly improved, in order to adapt it to the purpose of working a colliery where much gas is produced.

THE "STALL AND PILLAR" v. THE "LONG WALL."

SIR.—It is much against my inclination that I again address you on this question; but I must crave your permission to make one or two observations in reference to Mr. Naysmith's letter in last week's Journal. Mr. Naysmith, I must say, continually evades the direct questions put to him as to the cost of the management and contingencies a colliery is subject to; he has, however, publicly stated that 1d. per ton will cover all these expenses. Now, Mr. Naysmith, in common fairness, should give a distinct reply as to how he provides for all the following items out of the 1d. per ton. He can certainly furnish it out of the debtor and creditor account, as he tells us he took his prices from the colliery books:—1, the cost of management and agencies, clerks, stamps, and discounts; 2, travelling expenses; 3, bad debts; 4, way-leave and surface damages; 5, collectors and brokerage; 6, accidents and other contingencies; 7, opening out the works, &c.; 8, interest on capital for sinking shafts, erecting machinery, constructing and maintaining tramways, repairs, &c.; 9, poor and other rates, income tax, &c.

In my paper I estimated these contingencies at about 9d. per ton, and from letters I have received from several gentlemen in Mr. Naysmith's own neighbourhood, even they estimate these charges at 7d. per ton. Mr. Naysmith ought to know all these charges must be first deducted before a proprietor can claim a farthing profit; and as he has made one serious mistake in his estimates, the whole of his statements are now open to grave suspicion. Mr. Naysmith seems anxious to get rid of the discussion to which, I maintain, his own indiscretion has led. If I had made the statement that 1d. per ton would cover all the cost of management and contingencies of a colliery, I should have considered it fatal to my reputation. Mr. Naysmith calls on "V." for his paper on the long wall system; and from the courteous manner "V." has entered into this discussion his courtesy will be reciprocated by me. In the meantime I will prepare my second paper on the Long Wall System, if possible, for next week's Journal.

26, Throgmorton-st., Oct. 12. GEORGE SHEPHERD, C. & M.E.

THE "STALL AND PILLAR" v. "LONG WALL" SYSTEM.

SIR.—I intended to have left this subject with Mr. Shepherd for a short time, but he seems determined on making my statements as to the cost of working coal appear false. I before stated that my figures were taken from the cost-sheets of a colliery now in operation, and every item is there. He now charges me with having omitted headings. I must tell Mr. Shepherd there were no headings working; they were all driven to the boundary long ago; besides, this item never ought to be much, if a colliery is well managed, and the workings properly laid out. He also charges me with having omitted firemen, &c. Is this not too ridiculous? as that is one of the items of my cost—firemen, roadmen, &c., 1d. Mr. Shepherd seems to be troubled with a very short memory, for after this he goes on to say, "It is the value of the coal after it is wrought to which I invite attention; I care little about the cost of getting; the proprietor claims the slack as his property." And again—"In the letters of my opponents there is a marked silence on the loss of coal; the proportions of lumps, seconds, and coal cut to dust; it is amusing to see how they evade this question." To undeceive any of your readers who may have been led away by those statements, I may state that the trams by which the coals are carried from the face of the workings to the surface are made of flat bars of iron; and between the bars, on the bottom of the tram, are openings $2\frac{1}{2}$ inches wide, and 4 inches between the side bars; the trams are so made that they shall not carry small coal; and each of these trams carry from 20 to 28 cwt. of coal, the greater part of which is built up above the top of the tram. We will, for argument's sake, suppose the trams to carry on an average 20 cwt., and does Mr. Shepherd know how much small is allowed to be in a tram? No; or he would never have brought so poor an argument as this before the public. But if, as I said before, a tram contains 20 cwt. of coal, the collier is paid for 19 cwt., as 1 cwt. is always allowed in a tram for breakage, and when the tram is tipped upon the screens (which are in this neighbourhood about $2\frac{1}{2}$ inches between the bars) and more than 1 cwt. passes through the screen, it is deducted from the collier's weight, so that he has no benefit whatever in sending out small coal. There is a machine placed under each screen, which accurately weighs the small coal brought out in the tram. Where did Mr. Shepherd see the large heaps of coal he so frequently describes? It is well known that what little small coal comes to bank in the Aberdare collieries is almost useless, and it is thus left to accumulate about the tops of the pits. And again, Mr. Shepherd speaks of the value of the coal; can he produce the equal of the Aberdare steam coal in his district? I think not. I consider the whole of Mr. Shepherd's questions are now satisfactorily answered.

J. NAYSMITH, Jun.

COLLIERY AND MINE SURVEYS.

SIR.—When I made the suggestion as to the best method of preventing errors by the use of the dial or compass in surface and underground surveys of collieries, I was not aware that your correspondent, "S. T. W. M." had previously made a similar suggestion. I have been a constant reader of your valuable Journal for some years, and I never noticed this suggestion before, but I agree with him as to its not being a new idea, neither do I wish to take credit to myself for such; I simply made the suggestion for the benefit of others who, like myself, might not have noticed the suggestion of "S. T. W. M." Referring to the letter of M. B. Gardner, in last week's Journal, on this subject, I see he states "It is not necessary to have fixed points underground as well, as the variation will be the same underground as above, if no local attraction exists." Now, I think this gentleman's letter further on proves that it is absolutely necessary to have fixed points underground. He next says, "The diurnal variation arises from the action of the sun's rays; this variation may be said to be the effect of light and darkness, and does not, I think, operate in mines, as I have proved a needle pointing exactly in the same direction at different periods of the day." Now, I ask Mr. Gardner if it would be right (after what he here states) to go with his dial in the daytime, exposed to the sun's rays, and note any variation he might find, and afterwards go underground (where no such variation exists) and survey the colliery, and afterwards quite innocently lay down the same on the colliery plan, allowing for the variation on the surface as being correct? Would this be correct, Mr. Gardner? If there is any faith to be placed in the argument you have brought forward it cannot be correct, and to prevent this there must be, as I suggested, two fixed points underground.

There is yet another part of Mr. Gardner's letter I cannot help noticing; he says, "In reading off the lengths the chain should be kept in a horizontal position." How is this to be done, Mr. Gardner? and is it correct to do so? I believe our forefathers were guilty of doing such things, but I thought such incorrect methods of measurement had long been abandoned. How can Mr. Gardner hold a 66-ft. chain in a horizontal position in a colliery where the seam is 5 ft. in thickness, and an inclination of $\frac{1}{4}$ in. in the yard? Is it not better to let the chain lie on the ground, and thus be certain that you have advanced a chain, although it may be at a considerable angle. If you hold the chain up at the lower end until you judge it to be level with the upper, where is the middle part? is it not hanging down considerably between the two parties; and, besides, this is all guess

work. Measure on the ground, and take the angle with some instrument with a vertical arc for taking angles of altitude and depression, one side of which should be numbered from 0° to 90° for angles of altitude or depression, and the other side of the vertical arc contains a line of division showing the number of links to be deducted from each chain's length in measurement up or down any ascent or descent in order to reduce it to true horizontal line. There are many very fine circumferenters made with this vertical arc attached. These instruments are well adapted for colliery or mine surveys, and which will answer all purposes underground quite as well as a large and cumbersome theodolite.

J. NAYSMITH, Jun.

MINE SURVEYS VERSUS SURVEYS OF MINE.

SIR.—When landmen talk about the variation of the compass affecting small underground surveys, it is time mariners traversing open seas begin to open their eyes, particularly after Mr. Gardner so gravely informs the world—"The diurnal variation arises from the action of the sun's rays." This variation may be said to be the effect of light and darkness, and does not, I think, operate in mines, as I have proved a needle pointing exactly in the same direction at different periods of the day." Now, in the first place, although hours of the day and night, through every shade of darkness, yet never observed any visible diurnal vagaries of the compass, except caused by local agencies, meteoric phenomena, or electric disturbances. As for the idea of any scientific person imagining ordinary compasses would perceptibly vary within 24 hours on the same localities very much, it is most absurd. I have not, I think, ever heard of any compasses being perceptibly affected by the sun's rays, unless when situated in the tropics, when the variation is very great. As for the variation of the compass in mines, I have not, I think, ever heard of any compasses being perceptibly affected by the sun's rays, unless when situated in the tropics, when the variation is very great. As for the variation of the compass in mines, I have not, I think, ever heard of any compasses being perceptibly affected by the sun's rays, unless when situated in the tropics, when the variation is very great.

Aberystwith, Oct. 14.

LANTWIT VARDRE COLLIERY COMPANY.

SIR.—"Inquirer" has made some remarks in last week's Journal, reference to this colliery, to which I beg to reply.—1st. As to the seam proposed to be worked: if "Inquirer" had read my report, he would have found them named.—2d. As to there being only three seams worth working: I know myself of the existence of the seven lower seams referred to in the Lantwit Vardre Colliery, which were worked on the Llanharry property, the crop of one of which is now being worked to supply coal to the engine, and bricks, and which has been worked in several collieries to the westward—Pencoed Pyle, &c.

Should "Inquirer" furnish me with his name and address, I will forward him a copy of a report received by the directors since the prospectus was issued, entirely confirming the published report, and I shall be happy to afford him any other information he may require. "Inquirer" may excuse the directors if they do not avail themselves of the services of the parties named by him, as they have confidence in their own engineer, who I trust he will continue to merit. As to the amount paid for the property, I could point out several properties sold in the neighbourhood for larger sums in proportion, about which "Inquirer" never expressed any interest, but that it would be invidious to do so.

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I also wish to reply to your correspondent, "J. S." I think he will find, upon enquiry, that Messrs. Powell are sinking at Ponlyan to the Gwana Castella seam, which underlies the seams worked by the company, and that the property they have secured is to the north of their former workings, and contains the two upper seams, which are worked out in the old pit, and it is no disengagement to the Lantwit Vardre property, which is quite able to answer for itself.

26, Throgmorton-st., Oct. 12. GEORGE SHEPHERD, C. & M.E.

JOINT-STOCK COMPANY PROSPECTUSES.

SIR.—As I am not honoured by Mr. Channer with any further communication on the subject, I ask you to oblige me with space for the following correspondence:

36, Cannon-street, E.C., Oct. 14.

SIR.—In the interest of intending Investors I beg the favour of your informing what is the estimated or anticipated amount to be paid to the owner of the Gray's Chalk Quarries for the lease, stock, and plant? It is customary to have the sum stated in prospectus.—To Mr. A. W. Channer, Secretary.

The Gray's Chalk Quarries Company (Limited), 8, George-st., Lombard-street, London, E.C., Oct. 13.

SIR.—In reply to yours of the 11th inst., the amount to be paid to the owners can be ascertained till the valuation has been made.

A. W. CHANNER, Sec. pro tempore.

SIR.—I understand from yours of yesterday, in reply to my letter of Saturday, that a valuation has been made of the property to be transferred to the above-mentioned company by the owner. What, then, is the basis of calculation upon which it is assumed that 50,000£., the intended capital of the company, will suffice for its operations? The proposed valuation may absorb three-fourths or four-fifths of that amount?

To Mr. A. W. Channer, Sec.

36, Cannon-street, E.C., Oct. 14.

SIR.—To any client of yours intending to take share in the above concern, I shall be happy to give any information (as stated in the prospectus) if you will call on me here.

To Mr. J. Lee Stevens.

A. W. CHANNER, Sec. pro tempore.

SIR.—It is stated in the prospectus of your company that from you "all information may be obtained, personally or by letter." Of your ability to give information personally, in your own interest, I have no doubt; and your note, to which this is my answer, saves me of your inability to do so, and the interest of the public considered, You try to draw a distinction between my clients and myself, and thereupon to withhold information to which the public, through whom you seek to obtain subscribers, must be deemed to be entitled. I accept, then, the note before me, as a challenge to give public to my correspondence, that the public may judge between us.

To Mr. A. W. Channer, Sec.

Meetings of Mining Companies.

KELLY BRAY MINING COMPANY.

A general meeting of shareholders was held at the company's offices, Austinfriars, on Thursday.

Mr. H. G. SMITH in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

A statement of accounts, ending with costs for August, was submitted, from which the following is condensed:—

Call	£604	4	11
Copper ore sold	954	4	1
Mundic sold	100	0	£1658 9 0
Balance last audit	£214	5	3
May mine cost, merchants' bill, &c.	323	7	7
June ditto	379	11	10
July ditto	370	14	6
Aug. ditto	347	4	4
Leaving credit balance	£ 23	5	6

The report of the agent was read, as follows:—

Oct. 13.—I beg to hand you the following report of the operations in this mine since the last general meeting:—In the 85, east of the western engine-shaft, which has been for some time idle, we have cut south to the east of a small cross-course, and discovered the south part of the lode, which will average in size from 2 to 5 ft. wide, and have taken it down for 4 fms. in length, and drawn the same to surface, which has produced 10 tons of fair quality ore, and the lode in the end is still about the same value—a very promising lode, opening profitable ground. The 75 has been suspended for some time, and the tributaries are stopping the backs, and earning fair wages. We have commenced a rise in the 35, which is up now upwards of 5 fms.; here we have made a good discovery in the past week; we have opened on the lode 9 ft. in height since the ore has been discovered, and find the lode is 3½ ft. wide on an average, and will produce from 4 to 5 tons of rich ore per fm. Both the ends and back of the rise are equally as rich as when the bunch of ore was met with; it is worth in sight from 30d. to 36d. per ton. Our ideas are to make a communication with the 25 with all possible dispatch. When effected there will be good ventilation, and a fine piece of valuable ground laid open. You will please bear in mind the 25 is not up to the point where the rise is by 3 fms., which you can see by the plans. You will please also observe there is a great quantity of whole ground standing, both in height and in length, eastward of the before-named discovery, which will, if the same prospects continue, yield a great quantity of ore of superior quality.—Eastern Mine: The 70 has been driven east since the last general meeting 113½ fms., and is now east of shaft about 55 fms., in which the lode is 1 ft. wide, composed of white iron, fluor-spar, mundic, and occasionally spots of ore, and the ground is easy for progress; set at 5½, 5s. per fm. We have commenced a cross-cut south at the before-named level, in order to prove the bunches which were met with in the cross-cut about 50 fms. further west; the ground in the cross-cut is strongly mineralised, with branches containing mundic and copper ore, and the water freely oozing from the end, showing indications that there is something not far ahead. The tribute department is somewhat improved in the past week, and if the same prospects continue as at present, the balance will be on the right side of the sheet against another meeting. Every care shall be taken, consistent with the proper development of the mine, in order to keep the cost as low as possible. The machinery is in good working order, and of ample power for many years to come.—S. JAMES.

The CHAIRMAN said it afforded him much pleasure in being able to state that the present financial position of the company was much more satisfactory than for some time past, as there was now a small balance in favour of the mine. Although the report was of an encouraging character, it was deemed by the committee that the more prudent course upon the present occasion would be to make a small call, which might, perhaps, be the last that would be required.

Mr. SMITH said there certainly had not been a more satisfactory report or statement of accounts submitted for a considerable time past. He hoped the company's affairs would continue to progress, and that the development of the property would be satisfactorily prosecuted without any further calls being made.

The SECRETARY said it was his opinion that the bunch of ore cut in the 85 was a continuation of that bunch which in the 75 had produced such large returns. It would be seen by the discovery made in the 35, of a lode of the average value of 35d. to 40d. per fm., that it was a bunch of ore making up in the gossan. The 25 end would meet this same run of ore in 4 or 5 fms. driving; and if it were cut at that point, he had no doubt that a very large amount of ground would be discovered, which would come away at considerable profit. Every exertion was being made at the eastern part of the mine, by driving the ends and putting out cross-cuts, to endeavour to make some discovery; and he (the secretary) confidently hoped that before the next general meeting satisfactory results would be attained. Everything was being conducted with the greatest economy, and the agents felt no small satisfaction at seeing the whole of the mine presenting such a promising aspect.

A SHAREHOLDER fully agreed with the remarks that had been made as to the improved position of the mine, and he should certainly support the proposition of the committee to make a small call upon the present occasion.

A SHAREHOLDER enquired if a call of 1s. per share would not be sufficient to meet all their requirements?—The SECRETARY thought it would be better to make the call 2s., for then the committee would be able not only to discharge the claims upon the company, but the agent would not be compelled to take away the ore so rapidly as he would otherwise have to do.

The CHAIRMAN, in answer to a question, stated that the total amount of the arrears of call was 612. 10s.

The report having been received and adopted, and the accounts passed and allowed, a call of 2s. per share was made; a discount of 5 per cent. to be allowed if the call be paid on or before Nov. 1. The committee of management were re-elected.

A vote of thanks to the Chairman terminated the proceedings.

PROSPER UNITED MINING COMPANY.

A general meeting of proprietors was held at the account-house on the mine, on Oct. 2.

Mr. FREDERICK HILL in the chair.

A statement of accounts, ending with costs for July, was submitted, which showed a debit balance of £9802. 8s. 4d.

The report of the agents (Capts. J. Richards, W. H. Martin, and W. Millett) was read, which stated that during the four months ending with July there had been 336 fathoms of ground explored. There were employed in tutwork operations, without stopes, 86 men and 10 boys; and tributaries, 52 men and 12 boys. The quantity of black tin in stumps and at the stampa was 33 tons 15 cwt. 1 qr.—taking it at 66d. 5s. per ton, it is equal to 2237t. There is a large quantity of low-priced tinstuff that can be broken when the stamps require it.

The CHAIRMAN said the accounts just submitted, embracing a period of four months, included the cost of a large supply of coal, as well as of two cargoes of timber—the latter being worth between 700d. and 800d. Although it would have been much more satisfactory if the accounts showed a balance on the right side of the book, yet he believed a further development of the property would soon bring about that desirable result. Among the various authorities who had expressed a favourable opinion of the property, he might mention the name of Capt. Taylor, of Wendron Consols. That agent (the Chairman) was glad to inform the meeting was present, and would afford any information beyond that contained in his report. With respect to the tin at surface, it would be seen that Capt. Richards estimated the quantity at upwards of 33 tons.

Mr. MUNCHISON enquired what further cost would be required to make the tin marketable?—Capt. RICHARDS calculated that it would cost about 12d. or 15d. per ton.

Mr. MUNCHISON enquired what were the important points from which large returns had been anticipated, but which had failed?—Capt. RICHARDS said that some time ago they had a very fine bunch of ore at Hill's shaft, which lasted for 10 fms. in length, but only from 4 to 5 fms. above, and 3 fms. below, the level. He still believed, however, that it would be again found in depth. A point which up to the present time had caused some disappointment was in driving west of Hosking's shaft towards West Prosper. As yet that had not turned out as had been confidently expected; but it might be remarked that the exploration was at a comparatively shallow depth. The former company had driven in that direction so far as it was considered prudent on account of the water, but they always had a very promising lode.

A SHAREHOLDER would like to hear read the report of Capt. Taylor, who, he believed, had inspected the property on behalf of the lodes.

The report of Capt. Taylor stated that Louisa's engine-shaft was sunk to the 40 fm. level, and that the lode entered the shaft about 2 fms. above that level, containing good work for copper and tin. The 60 fm. level had been driven west of the shaft about 3 fms., the lode in the end being 6 ft. wide, with a very promising appearance, yielding good work for copper and tin, and worth for both minerals about 15d. per fathom—this end is likely to considerably improve in driving. The 60 had been driven east about 3 fms., lode poor; the lode in the wings sinking under the 50, west of shaft, was 6 ft. wide, worth about 20d. per fathom for tin and copper. There are about 3 fms. more to sink to communicate with the 60 fm. level, when, no doubt, there would be a large piece of ground available, which would be worked to a good profit. The lode in the 50 fm. level, west of Louisa's shaft, had increased in size to about 11 or 12 ft. wide, when it split into two parts, forming a horse between the two levels of about 12 ft. thick. The lode in the north end was fully 6 ft. wide, containing a large quantity of mundic, with good streaks of copper, and tinstuff of low quality. Judging from the nature of this lode, he thought any mineral would be inclined to say there was every indication of large quantities of copper, which must certainly be found in depth under this rich deposit of mundic. The lode in the south end was 4 ft. wide, worth for copper 26d. per fathom. He thought this a very important part of the mine, and had no doubt the returns from there would considerably increase. The 60 fm. level had been driven east of Hosking's engine-shaft 16 fms., through a lode averaging 6 ft. wide, worth for that length about 25d. per fathom for tin. The 50 had been driven east of Hosking's shaft 12 fms., opening moderate tributary ground. The wings below the 50 was down 7 fms., lode large and of a promising character, and when well laid will open a large piece of profitable tin ground in the back of the 60. There were a great many other points in operation, some of which, no doubt, would prove productive, but at present poor. He would beg to add that, with regard to the machinery, it is scarcely needful to say everything is of the first order, and both underground and at surface reflect great credit on the manager.

Capt. RICHARDS (in answer to an enquiry as to the reason that the tin had not been sold) said there had been an unavoidable delay in getting the stamps into working order, and also in attacking the calciner; but there were now 32 heads of stamps at work, and this week there had been sold 500d. worth of tin, at an average of 66d. 5s. per ton. He hoped from the present time to make regular monthly returns, beginning with 10 tons. Although, as he had already said, there were 32 heads of stamps at work, he thought in about six weeks from the present time the number of heads would be doubled, and soon after that the returns of tin would be materially increased, perhaps twofold. There was a large quantity of tin ground opened; but it would be useless to increase the expenditure of breaking and raising the stuff until that which was accumulated upon the floors had been cleared off.

Mr. JAHRAY enquired what were the prospects for copper?—Capt. RICHARDS said he was sorry to say that the bunch of copper which was met with had not continued to answer their expectations. It was rich for the time, but it must be remembered that the mine was comparatively shallow. They might look upon the bunches as gossan bunches, so that they might have poor levels between the gossan and ore. He was glad to say that there was at present a very splendid course of ore in the 50, west of Louisa's shaft, as the shareholders might see by the fine pile of ore then on the floors. If this bunch continued it would not be at all a difficult matter to pay the costs of the mine. In the former working of West Prosper they returned sometimes as much as 700 tons of copper per month.

Several large shareholders suggested that the mine should be inspected by Capt. Chas. Thomas and Capt. Pascoe (of South Frances), which suggestion was unanimously agreed to; but, as there was some doubt whether Capt. Charles Thomas would be able to undertake the duty, it was decided that Capt. Daw (of Carn Brea) should, in that case, be requested to join Capt. Pascoe.

Mr. MUNCHISON suggested that the attention of the inspecting agents should be particularly called to the expenditure that had been incurred, and to give their opinion as to whether there had been an unnecessary or extravagant outlay, for it would be very important to have an independent opinion upon this point, it having been so repeatedly raised. He could not but think it was a great pity, and particularly in an extensive undertaking, that a larger number of shareholders did not attend the general meetings upon the mine, and see for themselves; for, however ignorant a person might be of mining, there could be no doubt that, by visiting the spot and by there hearing explanations and discussions, a tolerably clear idea of the merits of any mining undertaking might be formed.

The report and accounts having been received and adopted, a call of 1s. per share was made. A vote of thanks to the Chairman terminated the proceedings.

NORTH TRELLAWNY MINING COMPANY.

A general meeting of shareholders was held at the London Hotel, Liskeard, on Oct. 9, Capt. PETER CLAYTON in the chair.

The notice convening the meeting having been read, the minutes of the last were read and confirmed. A statement of accounts for the quarter ending June showed a credit balance of £31. 7s. 3d. The liabilities exceeded the assets by £119. 17s. 7d.

The report of the agents (Capts. H. Hodge and H. Harvey) stated that the lode in the 70 south was 1 ft. wide, producing stones of lead—an improvement was expected in this end shortly, there being a good lode gone down before this end from the level above. The stopes in the back of this level would produce 5 cwt. of lead per fm. The cross-cut was extended west of the quarry lode 6½ fms. towards the western lode. Two parcels of lead were sold on Oct. 7—No. 1, computed 9 tons, at 24d. 10s., to Messrs. Stock and Co.; and No. 2, 5 tons, at 71. 17s. to Messrs. Sims, Willyams, and Co. They hope to sell another parcel prior to the next general meeting.

The CHAIRMAN having moved the adoption of the report and accounts, stated that any further information which shareholders might desire would be gladly afforded.

Capt. H. HODGE (manager of North Trellawny and Wheal Mary Ann), in answer to questions put by Mr. Peter Watson, stated that North Trellawny contained the same lodes as Wheal Ludcott, as well as the same cross-course that had produced so much silver in that mine. At the present time North Trellawny was paying about half its costs, and will produce from 4 to 5 tons of rich ore per fm. Both the ends and back of the rise are equally as rich as when the bunch of ore was met with; it is worth in sight from 30d. to 36d. per ton. Our ideas are to make a communication with the 25 with all possible dispatch. When effected there will be good ventilation, and a fine piece of valuable ground laid open. You will please bear in mind the 25 is not up to the point where the rise is by 3 fms., which you can see by the plans. You will please also observe there is a great quantity of whole ground standing, both in height and in length, eastward of the before-named discovery, which will, if the same prospects continue, yield a great quantity of ore of superior quality.—Eastern Mine: The 70 has been driven east since the last general meeting 113½ fms., and is now east of shaft about 55 fms., in which the lode is 1 ft. wide, composed of white iron, fluor-spar, mundic, and occasionally spots of ore, and the ground is easy for progress; set at 5½, 5s. per fm. We have commenced a cross-cut south at the before-named level, in order to prove the bunches which were met with in the cross-cut about 50 fms. further west; the ground in the cross-cut is strongly mineralised, with branches containing mundic and copper ore, and the water freely oozing from the end, showing indications that there is something not far ahead. The tribute department is somewhat improved in the past week, and if the same prospects continue as at present, the balance will be on the right side of the sheet against another meeting. Every care shall be taken, consistent with the proper development of the mine, in order to keep the cost as low as possible. The machinery is in good working order, and of ample power for many years to come.—S. JAMES.

The CHAIRMAN said he was a large shareholder, and had been so for some time. He had a good opinion of the property, and believed by perseverance they would ultimately be rewarded for their outlay.

Mr. RICKARD (the purser), in answer to a question, stated that the arrears of call did not exceed about 80d. So that, if the whole of the arrears were paid the company's book would be cleared within about 20d. He believed that North Trellawny would ultimately prove a profitable mine.

Mr. PETER WATSON said that from a personal inspection of the property, as well as from information he had been able to collect in the district, he believed they had the most confident reasons for anticipating that North Trellawny would, upon further development, prove equal to the circumjacent properties, which had done, and still were doing, so much for their respective properties. It was traversed by the same lodes, and, indeed, by the same cross-course that had produced so much silver in the neighbouring property, Ludcott; and he could see no reason why North Trellawny would not produce the same results.

The CHAIRMAN (in answer to a question from Mr. Edward Cooke) said that the lowest level was the best, which was, of course, a satisfactory feature.

Mr. E. COOKE said he was always an advocate for the vigorous development of mines; and as North Trellawny seemed to possess all the elements of a productive property, he should most certainly vote in favour of a call being made upon the present occasion sufficient to carry on the development of the property with vigour.

Mr. PETER WATSON said there was a general opinion that if the engine were placed upon the brow of the hill, North Trellawny would soon prove itself equal to the adjoining mines. That, however, was perhaps but a matter of opinion; all he could say was, that he hoped the executive would determine upon a more vigorous development of the property.

Captain HODGE stated that the sinking had been through a most favourable kilia.

The CHAIRMAN said it had been a matter of surprise to everybody that more lead had not been met with, considering the quantity that had been returned from Ludcott, but he thought there was every probability of having a good lode in depth.

Upon the proposition of Mr. E. COOKE, seconded by Mr. P. H. HODGE, the accounts to the end of June were passed and allowed, and the report was received and adopted.

After some discussion, a call of 2s. per share was made.

A vote of thanks to the Chairman was passed, which terminated the proceedings.

THE GOLD MINES OF MERIONETHSHIRE.

The abstract of Mr. Readwin's very interesting paper on the "Gold-bearing Strata of Merionethshire," read before the British Association, and published in the *Mining Journal* of Oct. 11, represented the position and prospects of the Welsh gold mines in far less glowing colours than the paper itself, and as gold in Wales is at present the all-absorbing topic, it may be worth while to revert to the paper in order to extract a few more of the important facts. Mr. Readwin divides the auriferous district of which he treats in the Cwmheisian, Maesgwm, Berthlwyd, Cambrian, Clogau, and Vigras, and as the Clogau has been the first to prove profitable, it is certainly entitled to have priority.

Mr. Readwin states that the mine is situated about 1½ mile north of the Half-way House, on the turnpike-road from Dolgelly to Barmouth, the most charming in Europe. This property contains a large number of lodes, mineralised throughout, more or less, with galena, blende, and copper pyrites, and with the occasional occurrence of bismuth and tellurium. The St. David's gold lode is the most noted, in consequence of it having outstripped all other gold mines of the kingdom, by doing the last thing that was predicted of it—"pay a profit." Of this, however, there can be but little doubt, as by official returns up to Sept. 30 last, 7892 ozs. of gold have been sold to the Bank of England, the produce of only 1091 tons of quartz; 1173½ ozs. of which was produced from 1072½ tons of mineral in which the gold was not visible, and the astonishing quantity of 6718½ ozs. from only 18 tons 17 cwt. 3 qrs. 14 lbs. of quartz, realising nearly 30,000d., at a cost of some 3000d., or less. No quartz mining on record has given such a result. This remarkable lode produces gold in quartz, in the 15 fm. level, at the rate of 1 oz. to the ton.

Mr. Readwin believes that, under proper management, the Clogau is capable of producing far greater results than those mentioned. Besides the Clogau proper, the district contains the Garthgell (on the St. David's and Cambrian gold lodes), which has yielded 2 to 10 dwt., to the ton, and appears to increase in depth; the Tyndynddu, which is at present unexplored, the Hendrefoilan, where the indications are good; and the West Clogau, which yields 17 dwt. to the ton.

The Vigras Copper Mine is situated to the west of Clogau, and takes up nearly the whole of the Vigras Mountain. Extensive explorations have been carried on here for copper, some of which is auriferous. The lode stuff taken at random yields nearly ½ oz. of gold to the ton, on assay. Specimens have produced more than this. Visible gold is said to have been found here. This mine ought to be worked on a large scale for gold. The Clogau Gold Mill is erected on this property. The Tyndynddu has several lodes, all of which are auriferous; at present they are poor at surface. The Wellington, the North Vigras, the Fach-Ynys, the Nant-Coch, and the Llanaber, are also in this district, the West Clogau, which yields 17 dwt. to the ton.

In the Cwmheisian district there is

engine-shaft, is much the same as when last reported on; a kindly lode. In the 24 fm. level, east from Quicks's shaft, is about 15 in. wide, letting out a large quantity of water, but is still poor. I am sorry to inform you that we have had very heavy floods here, so much so that we have been obliged to stop the wheel and screw down the hatches in the lobby, to prevent the water from going down into the shafts; this, however, did not hinder the men from working in the engine-shaft more than 12 hours. The flood has done some little damage to the wire-head, so that we have been obliged to take the men from Quicks's to repair it. Such heavy floods as this but seldom occur.

DOLCOATH.—C. Thomas, W. Provis, J. Tonkin, J. Thomas, Oct. 13: South Part of Main Lode: The engine-shaft is sunk 10½ fms. below the 266; the lode is producing a little tin. The 254 is driven through the south part; we are now rising above this level towards old sump-shaft, in a lode worth 10f. per fm. At the 230, west of old sump, we are still driving south for the purpose of intersecting the south lode. Dunkin's garden shaft, under the 220, is worth 20f. per fm. The 220, west of Dunkin's garden shaft, is worth 25f. per fm. The 210 is driven so far west as Harriett's shaft; we are now driving south to intersect the main lode. At the 210, east of new east, we have intersected the north part, and find it to be worth 15f. per fm. Harriett's shaft is sunk 6½ fms. below the 200, but is almost entirely to the south of the lode. The 200 fm. level, 10 fms. west of Harriett's shaft, is worth 35f. per fm. The lode at the 190, under Valley shaft, is 9 ft. wide, and producing a little tin. Valley shaft, sinking under the 170, is worth 30f. per fm. The 160, west of Wheal Killas, is producing stones of copper ore.—North Part of Main Lode: The 266, east of engine-shaft, is worth 150f. per fm. At the 266, west of engine-shaft, the part on which we have been driving has been worth only 15f. per fm.; we have now commenced driving south to ascertain the value of the other part. The winze under the 254, east of engine-shaft, is worth 20f. per fm.; it is probable that this winze is not on the same part as that on which the 266 end, east of shaft, is being driven. The 254, east of new east, is worth 12f. per fm. The 254, west of engine-shaft, is worth 25f. per fm. At the 242, east of new east, we are rising towards the winze, which is sunk 5 fms. below the 236; lode worth 12f. per fm.—New South Lode: The winze under the 190, west of Harriett's shaft, is worth for tin and copper 100f. per fathom for 12 ft. wide.—North Central Lode: The lode in the winze sinking below the 210 is 3 feet wide, producing stones of copper ore. The western part of the mine, to the west of the new engine-shaft, as well as the sump-winze below the 190 fm. level, 150 fms. west of that shaft, are fully answering our expectations. The amount charged in the current cost, for materials for the additional stampa, is 160f.

DRAKE WALLS.—Captain Gregory, Oct. 16: In the 102, east of Matthews's, the branches are producing a little tin. The branches in the 92 east are worth 7f. per fm. for tin. In the Tyre level east the branches are worth 7f. per fm., and of a very promising character. There is an improvement in the ground at the 80, west of Botteley's, which will enable us to make greater progress in reaching machine-shaft. The branches in the 60, west of Brenton's shaft, continue productive, and are worth 15f. per fm. In the 50, west of Brenton's, the branches are improving, worth 12f. per fathom. The branches in the 40, west of Brenton's, are worth 7f. per fm. Hooper's rise, in back of the 30, is producing good work for tin. There is every appearance of finding this productive piece of tin ground. No other change.

DULTA.—John Martyn, Oct. 14: We are now clear of the hard bar of ground on the south side of the shaft, and in another 6 ft. sinking the shaft will be in free ground. We are now 6 fms. under the 20, and everything promising for a good tin lode. The masons are building the new stack, but the weather has been unfavourable, and we can do nothing on the dressing-floors until they have finished, which I hope will be in 10 or 12 days from date, when we shall commence dressing tin for the market.

EARL BRONFLOYD.—C. Williams, Oct. 15: The shaftmen have completed fixing bearers, cistern, pump, &c., in the engine-shaft, and are now engaged in putting in penthouse for protection, in order to have the stuff drawn by machinery, which will be a great saving to us both in time and labour. The lode in the 10, east of the engine-shaft, is 7 feet wide, composed of clay-slate, white spar, and silver-lead ore, yielding of the latter about 20 cwt. per fm., with every appearance of speedy improvement. The lode in the stop west of shaft is without any change to notice since my last, still producing about 18 cwt., of silver-lead ore per fm. I have been compelled to discontinue working this bargain for a little time on account of the ore stuff having accumulated very much inside the mine; but when we get the drawing-machine to work we shall soon clear it out and resume working the stop. We are still waiting upon Mr. Green for the castings of the drawing-machine; but all will be ready this week, and no time will be lost in putting it to work. Everything for the pumping-machinery will be ready in a few days, and the water-wheel will be set to work at once. The masons are progressing favourably with the building the walls of the crusher-house, and they will be completed in a fortnight. The surface work is progressing very well.

EAST CARN BREA.—T. Gianville, Oct. 15: We have cut the middle lode in 60 fms. cut; so far as seen it is 1 ft. wide, yielding rich yellow ore; we hope to see more of the lode to-morrow.—Wheal Union: Since the report of yesterday the lode in the 20, east of old engine-shaft, is improved, and will now produce 3 tons of copper ore per fm.

EAST CLOGAU GOLD.—Capt. Roberts, Oct. 15: It gives me the greatest pleasure to inform you that we have this week found two small specimens containing visible gold in St. James's No. 2 level. I have here to remark that the lode is from 8 to 9 ft. wide; and if I may judge from the appearance of the ground as well as the lode, I have every reason to believe we shall have a lode equal to St. David's, at Clogau. In St. David's No. 3 level the lode is from 3 to 4 feet wide, composed chiefly of auriferous quartz, mafic, and occasionally spots of yellow copper—very promising. In St. David's No. 1 level the lode at present is rather obscured by the flockan, but we expect to get rid of it in driving a few fathoms more. In the St. John's lode we are still cutting the open lobby. At your request, I have put a couple of men to sink on the soft flats in the valley near the stream to look for grain gold, the result of which will be communicated to you in my next report. The masons are getting on with the smithy as fast as the weather will permit; I hope to be able to complete it in a fortnight or three weeks from this date. I beg to hand you a copy of our setting this month.—St. James's No. 2 level, set to drive by six men, at 10f. per fathom. St. David's No. 2 level, set to drive by six men, at 6f. per fathom.

EAST DEVON GREAT CONSOLS.—T. Neill, T. Richards, Oct. 14: We have no change to notice since the meeting—in fact, but little has been done for the past few days, having had to clean the engine, boiler, &c. The water, however, is in fork again, and all working well.

EAST DYLIFFE.—John Reynolds, Oct. 13: I have again examined this mine, and beg to hand you my report and opinion thereon. The property is granted by Messrs. Davies and Co., for a term of 21 years, and which is situate immediately to the east of the celebrated Dyliiffe Mines, the property of Messrs. Cobden, Bright, and Co., the lodes of which mine pass through the entire length of East Dyliiffe, yielding rich courses of lead and copper ore, dipping east, and is worked to about 60 fathoms from the boundary. Levels from the 90 and upwards are driven in courses of ore, and I have no doubt will be found to continue through East Dyliiffe property. The average yield of ore being 250 tons per month. The operations in East Dyliiffe have hitherto been confined to driving levels to prove each lode. In the bottom of No. 1 level a winze is sunk 3½ fms. on a fine lode, 4 feet wide, containing a leader of lead from 8 to 10 inches wide, and letting out a strong stream of water. This winze is now in course of sinking 10 fathoms, at which depth I have no doubt of having a good course of ore. No. 2 level is driven about 25 fathoms on the course of a parallel lode, which presents a capital prospect of a bunch of lead; this lode can be intersected by a cross-cut from the bottom of No. 1 level. An engine-shaft will be required to be sunk to command the lodes already proved, which can be done at a comparatively small cost, having an abundance of water to work the mine to a great depth, and also for rendering marketable the lead and copper ores. Viewing the extent and runs of ore in the Dyliiffe Mines eastward with the same metalliferous channel of ground, I consider the prospect of East Dyliiffe becoming equally as productive, and that it cannot fail to be a profitable and lasting mine. The expenditure required must be guided by the returns of lead and copper. It is situate in a good mineral district, and surrounded by Dyliiffe, Dwyngwm, Nanty, and other profitable mines. I can therefore, with confidence recommend this property, knowing the district well, from having had the management of Dyliiffe and Dwyngwm for many years, at the early working of which the prospect was not equal to that presented at East Dyliiffe, which I consider of no ordinary character, and one that will be attended with good results.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—J. Phillips, Oct. 16: The lode in the incline shaft is 5 ft. wide, worth 1 ton of ore per fm. In the 46, east of incline, the lode is 3 ft. wide, worth 2 tons of ore per fm. The lode in the 46, east of No. 3 winze, is 6 feet wide, worth 2 tons of ore per fm. No. 4 winze is communicated with the 46 fm. level. We are driving by the side of the lode in the 36 east. No change in any other part of the mine.

EAST JANE.—H. B. Verco, Oct. 15: Engine Lode: The lode in the engine-shaft is gradually improving, and is now from 5 to 6 ft. wide, as fine a looking lode as can be seen, although not at present of any commercial value.—Western Lode: The lode in the deep adit is about 2 ft. wide, producing some saving work for lead. The deep adit on the caunter lode has passed through 3 or 4 fms. of very rich ore ground, but the end is at present poor; we are daily expecting an improvement. The shallow adit has been driven for the last 10 fms. through a good course of lead, and the present end will produce full 1 ton per fm. The stopes in the back of the deep adit will produce 8 cwt. per fm. The new shaft is sunk about 9 ft. below the adit; the lode is from 5 to 6 ft. wide, producing for the length of the shaft (11 ft.) 2 tons per fm. We are progressing favourably with the dressing towards another sampling.

EAST PROVIDENCE.—T. Uren, Oct. 15: We are making good progress with the sinking of Boorman's shaft below the 50; it is now down 4 fathoms below the level, and in about two months from this we expect to get it to the 60. In the 40 and driving south, on the Providence great cross-course, we have some good stones of tin but as yet not to value.

EAST ROSEWARNE.—J. James, Oct. 11: There has been no lode taken down in Hallett's shaft for the week; it seems to me that the size and value, worth 15f. per fm. There has been nothing done on the north branch in the 55 east since last reported; we have cut a horse, and discovered the south branch; it is about 8 in. wide, composed of mafic, quartz, and a little copper ore; I think we have two distinct lodes going east from this point. The stope over the 55 east is worth 12f. per fm. In the 55 west the lode is 18 in. wide, of a very promising character, worth 20f. per fm. The stope below the 43 east of Hallett's shaft, is worth 13f. per fm.

EAST TREFUSIS.—J. Hoaking, October 15: Trelywn's lode at the 70 east has not been reached by the cross-cut driving north from engine-shaft; the ground continues hard and difficult for driving. In the 22 end, west of engine-shaft, on Smith's lode, the lode is 3½ ft. wide, composed of quartz and chlorite, with a little tin. In the adit end, west of middle shaft, on Trelywn's lode, the lode is small, composed of prian, containing a little tin. The western shaft is now about 21 fathoms from surface; a part of the lode in the bottom, as well as east and west of shaft, is taken away by the old workers; the part remaining, for 1 ft. wide, produces some very good work for tin. The lode in the end, driving west of Damsel shaft, is now 3½ ft. wide, yielding goss and spar.

EAST TRESCHERBY.—J. Nancarrow, Oct. 13: The ground in the 55 north is highly congenial for ore, and fair progress is now being made in driving; this cross-cut already begins to drain the level above, and there is every reason to expect that the lode when reached will be good, for the 40 improves as it goes east, and is very throughout, but is best towards the bottom of the end. There is no alteration in the 40 north.

EAST WHEAL FALMOUTH.—W. Hancock, Oct. 14: There is no change to notice in the 15, west of engine-shaft; the lode in the same level, east of shaft, is 19 in. wide, made up of capel and mafic, producing of the latter 1 ton per fm. The lead branch to the east of shaft is from 6 to 8 in. wide, producing good stones of silver-lead and blonde. The main lode in the adit end, east of shaft, appears to be improving in size. The branches appear to be uniting, producing mafic and blonde, but not enough to value. I think it advisable to make a floor, and dress the mafic and blonde, so as to ascertain its value.

EAST WHEAL RUSSELL.—J. Goldsworthy, Oct. 15: At Homersham's shaft the ground is favourable for progress. In the 120 cross-cut north the ground is a little stiffer for progress; the branches intersected contain capel, quartz, and yellow copper ore. In the 120 east the lode is 2½ ft. wide, composed of quartz, prian, mafic, and a little yellow copper ore, with an increase of water. In the 110 east, and east of Soper's cross-cut, the lode is 3 feet wide, composed of quartz, prian, peach, flockan, and a little black oxide of copper ore; the general character of the lode is promising. In the 110, west of Soper's cross-cut, the lode is 2½ ft. wide, producing 1 ton of copper ore per fm. In the 110, north and east of Fewin's shaft, the part of the lode carried is 4 feet wide, composed of capel, quartz, prian, and rich stones of grey copper ore. The part of the lode cut into in the 88 north is composed of capel, mafic, prian, and produces ½ ton of good copper ore per fm. In the 66 east, in the cross-cut north, so far as extended,

the ground contains capel, quartz, mafic, and good stones of yellow copper ore; we expect there is about 7 feet to reach the main part of the lode, as seen in the cross-cut to the west. The same remarks will apply to the cross-cut in the 45 east. In the 55 cross-cut north, to the west of Homersham's shaft, the ground is favourable for progress. The lode in the 88, west of Hitchins's engine-shaft, is 3 feet wide, showing indications of an improvement.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennett, Oct. 15: The shaftmen have nearly completed the plat at the 55, and in a few days more they will resume the sinking. The lode in the 55 west is from 2 to 2½ ft. wide, of ore, mafic, and tin, embedded in quartz, prian, &c., and looking more kindly than for some time past. The lode in the 45 east is 3 feet wide, with good stones of tin. The ground in the 45 cross-cut south is very easy for exploring, and the men are making good progress. The lode in the rise above the 45 is 2 ft. wide, yielding good work for tin, worth 5f. per fm. The lode in the eastern stop above the 45, west of the shaft, is worth 8f. per fm.; and the other stop is worth 10f. per fm. The lode in the stop above the 25 east is worth 6f. per fm. The lode in the winze sinking below the 35 west is large, and producing some excellent work for tin. We are busy about the dressing.

GAWTON.—G. Howe, Oct. 11: The lode in the 36, west from engine-shaft, is 4 feet wide, composed of flockan, spar, mafic, and copper ore, worth of the latter 2 tons per fathom. There is no change in the appearance of the lode in the stopes in the back of this level since last reported on. The men are now engaged in stripping down the lode at the deepest point, to intersect the ore ground standing before us.

GREAT BRIGAN.—T. Trelease, G. Gates, Oct. 11: We have our bottom lift again all right, and the mine is fork, and we hope to fix the standing drawing-lift in the course of next week; soon after we hope to reach the bottom of the shaft. The lode in the 61 ft. is at present 2½ ft. wide, unproductive; we find the lode north, where the main Brigant lode is down to within a few feet to the back of this level, underlies about 18 in. in a fathom south. Looking at the change, which is not usual, we are inclined to think to put out a cross-cut south from the present end, to ascertain if the main lode is standing that direction. The lode in the 49, driving west of the above shaft, is 6 in. wide, containing good stones of copper ore; the lode in this level, driving west of cross-course shaft, is 3 ft. wide, just the same as last reported; we find the lode in the drivage very changeable indeed, but expect to find it more settled at a deeper level, when we hope good results will accrue. This lode in the winze sinking below the 42 is 18 in. wide, containing good stones of ore, but not to value. In stripping down the side of the 32, about 15 fms. east of the cross-course shaft, we have discovered a lode underlying north about 18 in. in a fathom; this lode is 2½ ft. wide, worth at present 5 tons of ore per fathom, worth 5f. per ton; should this lode continue in depth and extend east and west, which we at present see no reason to doubt, it will prove of great importance to this mine. We purpose sinking a winze on it on Monday next, by six men; ground about 4f. 10. per fathom. All other points of operation throughout the mine are, as last reported on.

GREAT CARADON.—F. C. Harper, Oct. 15: This mine is situated about 600 fms. direct east of East Caradon, in the killas or clay-slate formation. Operations were commenced here by the sinking of an engine-shaft to the 40, at which point a cross-cut was driven both north and south of said shaft, nearly 40 fathoms east in the former cross-cut, a lode was intersected about 2 feet wide, consisting of peach, mafic, quartz, iron and stones of copper ore, presenting favourable appearances; and in the latter a lode 6 ft. 6 in. wide was also cut, carrying mafic, quartz, lead, and stones of copper ore, on which we drove a few fathoms.

GREAT NORTH DOWNS.—T. Trelease, Oct. 11: We have put in the bearer for the drawing-lift in the 47, and hope to get the lift at work by the end of next week. Yesterday being our monthly tulwark setting, we set to hand you particulars of the same.—The stop in the 47, west of the engine-shaft, by six men, at 8f. per fm.; lode 3 ft. 6 in. wide, worth 6f. per fm. The 40 to drive west of Rule's shaft, Pendarves lode, by six men, for the month, at 6f. 10s. per fm.; lode 2 ft. wide, containing good stones of ore, and two drawing-lifts, sufficient for all requirements for some time to come. Looking at the position of this mine, being direct east of East and South Caradon Mines, and having Marke Valley some short distance to the north, I think we may reasonably expect something good when the lodes are developed in depth, more particularly so when I inform you that it is generally believed that the East Caradon caunter passes through this seat somewhere to the north of our shaft. Immediately the shaft is down to the 60 we shall commence driving in that direction.

GREAT SOUTH DOWNS.—T. Trelease, Oct. 11: We have put in the bearer for the drawing-lift in the 47, and hope to get the lift at work by the end of next week. Yesterday being our monthly tulwark setting, we set to hand you particulars of the same.—The stop in the 47, west of the engine-shaft, by six men, at 8f. per fm.; lode 3 ft. 6 in. wide, worth 6f. per fm. The 40 to drive west of Rule's shaft, Pendarves lode, by six men, for the month, at 6f. 10s. per fm.; lode 2 ft. wide, containing good stones of ore, and two drawing-lifts, sufficient for all requirements for some time to come. Looking at the position of this mine, being direct east of East and South Caradon Mines, and having Marke Valley some short distance to the north, I think we may reasonably expect something good when the lodes are developed in depth, more particularly so when I inform you that it is generally believed that the East Caradon caunter passes through this seat somewhere to the north of our shaft. Immediately the shaft is down to the 60 we shall commence driving in that direction.

GREAT TREGUNNIS.—T. Trelease, Oct. 11: We have put in the bearer for the drawing-lift in the 47, and hope to get the lift at work by the end of next week. Yesterday being our monthly tulwark setting, we set to hand you particulars of the same.—The stop in the 47, west of the engine-shaft, by six men, at 8f. per fm.; lode 3 ft. 6 in. wide, worth 6f. per fm. The 40 to drive west of Rule's shaft, Pendarves lode, by six men, for the month, at 6f. 10s. per fm.; lode 2 ft. wide, containing good stones of ore, and two drawing-lifts, sufficient for all requirements for some time to come. Looking at the position of this mine, being direct east of East and South Caradon Mines, and having Marke Valley some short distance to the north, I think we may reasonably expect something good when the lodes are developed in depth, more particularly so when I inform you that it is generally believed that the East Caradon caunter passes through this seat somewhere to the north of our shaft. Immediately the shaft is down to the 60 we shall commence driving in that direction.

GREAT TREGUNNIS CONSOLS.—W. Richards, Oct. 16: The lode in the stop in the 30, east of winze, maintains its improvement. Good progress is being made in sinking Hobler's shaft; the lode in which is over 4 ft. wide, 2 ft. of which, on the footwall, is composed of quartz, felspar, and good stones of rich copper ore; the other part of the lode contains quartz, mafic, capel, and oxide of iron. The machinery continues to work well.

GREAT SOUTH TOLGUS.—J. Daws, Oct. 15: Friday last was setting-day. The lode in Lyle's shaft, sinking below the 140, is 8 feet wide, worth 75f. per fathom for 50 fms. by nine men, at 25f. per fathom. In the 140 east the lode is split into two braches, and unproductive; set to six men, at 4f. per fathom. In the 140 west the lode is set to six men, at 25f. per fathom; lode 15 in. wide, containing stones of copper ore. The deep adit level to drive east of Morcom's shaft, on the branch intersecting the cross-cut north, by two men and two boys, for the month, at 4f. 10s. per fathom; the branch is 6 in. wide, with stones of ore of a kindly appearance. The 40 to clear east of Sieglen's shaft, on the middle stop, by two men, at 5s. per fm. Brown's diagonal shaft to clear below the deep adit level, on Peever tin lode, by three men, at 15s. per fm. Nothing else new since our last report.

GREAT RETALLACK.—W. H. Reynolds, Oct. 13: The tributaries have had to clear their pitches of a good deal of rubbish, and hitherto have not been raising ore very fast, but are now doing better. The air at the 53 is not good, but we hope to get air-pipes fixed in two or three days, and for the present the men from the 53 north are sinking a winze below the 35, on Peru lode, to come down on the 53.

GREAT TREGUNNIS.—T. Trelease, Oct. 15: The tributaries have had to clear their pitches of a good deal of rubbish, and hitherto have not been raising ore very fast, but are now doing better. The air at the 53 is not good, but we hope to get air-pipes fixed in two or three days, and for the present the men from the 53 north are sinking a winze below the 35, on Peru lode, to come down on the 53.

GREAT SOUTH TOLGUS.—J. Daws, Oct. 15: Friday last was setting-day. The lode in Lyle's shaft, sinking below the 140, is 8 feet wide, worth 7

is improved, worth 61. per fm. for tin. The 60, west of incline shaft, is worth 201. per fathom for tin. The lode in the 48, west of No. 3 shaft, is 1 ft. wide, of a promising character, producing rich stones of copper ore, but not to value. The lode in the 55 east is 3 ft. wide, of a promising character, producing copper ore throughout the lode; here we expect an improvement soon. We have intersected a lode in the new engine-shaft, of a promising character, underlying north, 1 ft. wide, worth 161. per fm. for copper ore for the length of shaft. We intend to sample the next parcel of tin for sale on the 23rd inst.

WORVAS DOWNS.—R. Harry, Oct. 15: The south carbona in the deep adit, east of engine-shaft, has very much improved during the past week. It is now worth 141. per fathom, and looking kindly for a further improvement. No change in any other part of the mine since last report. All our operations are in regular progress, and prospect good.

YARNER.—R. Barkell, Oct. 11: The two stops in bottom of the 30, east and west of Rodda's winze, are looking better; the both together will yield 6 tons per fm. The stop in the back of this level is not looking quite so good, worth 2 tons per fm. The lode in the 40 west is a little more split up, still it's a good lode. In think the branches in the south cross-cut are the same we are driving on. We are through the lode in the 30 east, on the north lode; it is 3½ ft. wide, a very promising looking lode, and yielding saving work; the bearing of it is rather more north, which is a favourable indication.

—R. Barkell, Oct. 15: The lode in the 40 fm. level west is more split up than it was a few days ago; it is now worth 2 tons per fm. The western stop, in the bottom of the 30, is yielding 3 tons per fm. In the eastern one, in the bottom of same level, we are taking down a poor piece of ground, in order to lengthen the stop; the ore here is dipping east, which is the reason we are doing this work; the stop in the back of this level is yielding 2 tons per fm. We have commenced to drive by the side of the lode in the 30 east, on north lode, where we cut it through; it is 3½ ft. wide, producing saving work. We have sent away 85 tons of muck, which was sold to the Alkali Company.

VIGORA AND CLOGAU GOLD MINING COMPANY.—It is expected that in about a month the new stamps will be at work, when an increased quantity of quartz will be reduced, and it is believed an improved yield obtained. Up to the present time the reducing power has been limited and inefficient.

QUEBRA DA LAND, RAILWAY, AND MINING COMPANY.—The news from Venezuela by the mail is of a very favourable character. There seems no doubt that the new loan will be confirmed, which will give great strength to the Government. Upon the fact becoming known in Venezuela that the Quebada Company had been successfully formed, a general opinion was entertained that important concessions would be made by the Government to encourage in every way an undertaking of such importance. The advice state that in the company's property there are mines other than those mentioned in the prospectus, and which are likely upon development to prove of great commercial value. It may be stated that, after due deliberation, the directors have appointed Mr. Pritchett, a gentleman of great experience in connection with the value of land in tropical climates, to give a detailed report of the property. Mr. Pritchett will be accompanied by Capt. Brown (formerly the agent of Wheat Buller) who has been selected to inspect and report upon the mineral value of the company's property. These gentlemen will sail in the *Atrato*, which leaves England on the 3d proximo. The shareholders will receive a circular during the ensuing week, in which they will be more fully apprised of the above facts.

MINING BY MACHINERY.—We have upon several previous occasions referred to the invention by Mr. E. S. Crease, of Gracechurch-street, for drilling, boring, and excavating rock, and the specification of his patent having now been filed, we are enabled to explain the character of the machine, and to judge of its prospect of proving successful. To describe the machine in a popular manner, we may state that it consists of a simple engine cylinder, with the piston-rod elongated into a boring tool, such tool being made slightly to rotate after each stroke; or, better, that it consists of a steam-hammer, with the boring tool attached to the hammer-head. Both the hammer-head and the boring tool are supported by suitable framework. The force of the blow may be regulated with the same precision and facility as in the steam-hammer, and there appears to be no greater liability to get out of order. Mr. Crease has an ingenious method of preventing damage to the cylinder-heads, in case of the tool passing rapidly from hard to soft ground, or not being kept up to the work, which has hitherto been a great difficulty. He provides a small bolt, which, in the event of the piston going too far, is acted upon, and opening a valve, admits steam for the piston to be received upon, and returned to its proper position within the ports.

NEW ROLLING-MILL.—Mr. Charles White's improved mill is now in course of erection at the Dowlais Ironworks, Glamorganshire, and will be ready for work in about three weeks, for blooming railway iron. It consists of two pairs of horizontal and one pair of vertical rolls, placed one before the other, the vertical rolls being in the middle. There is but one groove in each pair, instead of the three in one pair, as at present, three grooves being the number generally used for blooming. The vertical rolls are driven by bevel or mitre gearing. The pile is thrown off the carriage into the first pair of rolls, and enters the second pair before leaving the first, and the third before leaving the second. The first pair presses the iron on its flat; the second, edge or sideways; and the third, flat, or *vice versa*, so that the pile, after once entering, travels through the whole of them without stopping, requiring neither men, levers, or tongs. There are guide-boxes between each pair of rolls, to prevent it going between the collar. For roughing and finishing it only requires more rolls to reduce the iron to the size required. The labour saved by it will pay for its erection in a short time. The iron is worked while in a welding state, consequently it will make better rails. There will be a saving in coal, as the bloom will pass to the second heating-furnaces much hotter. There will also be a better yield of iron, as it often happens now that, although the pile is in its proper heat on entering the first groove, it is so delayed by the men at the rolls, owing to its immense weight, that it falls all apart on coming out of the last groove. One machine will bloom for two mills, if required, going at one-sixth the speed of the ordinary blooming. It is not much more expensive to erect than other bloomings, and does not cover much space.

“HOME COUNTIES DIRECTORY.”—The character and accuracy of Kelly's Post-office Directories are so well known, and it has so frequently been our duty to point out their merits, that great as must be the labour necessary in correcting an old edition for republication, we are inclined to think that it is even less difficult to prepare and publish a new edition than to express a favourable opinion upon it without repeating what has already been written. The new edition of the “Post-office Directory of Essex, Herts, Middlesex, Kent, Surrey, and Sussex,” is well calculated to maintain the high character which Messrs. Kelly's Directories enjoy; and with regard to accuracy, although, of course, it is impossible to give a decided opinion, we may state that it offers all that can be desired. We have sought for the names of even unimportant personages in remote villages, and invariably found them to be duly registered. The book contains about 2000 pages, exclusive of advertisements, and includes the whole of the information comprised in the “Suburban Directory,” the first edition of which was issued a few years since.

PAPER MATERIALS.—We are glad to learn that Dr. Collyer, with whose name in connection with paper materials our readers are familiar, has now perfected his process, and is ready for work. Dr. Collyer claims that by his process 1 ton of “half-staff,” worth 201., can be produced for from 121. to 161., according to the material used, which may be wheat or oat straw, flax waste, Indian corn stalks and leaves, refuse sugar cane, &c. He estimates that upon a capital of 4001. a yearly profit of 30001. may be realised. The spent liquor from the process produces a rich fertilising manure at a small expense.

VERTICAL STEAM-BOILERS.—Mr. Jean Larmanjat, Paris, has patented some improvements in vertical boilers, which he constructs with a view to increasing the heating surface, saving of fuel, and consumption of smoke. The main body of his boilers consists of a cylindrical portion of small diameter occupying the centre of the fire space under and around it; this vertical cylinder widens out at about two-thirds of the total height of the boiler into another cylindrical and concentric portion, which is firmly united to said cylinder by a bottom having the shape of a truncated cone or frustum. The two cylinders described, forming one single recipient, contain the necessary quantity of water for generating steam; they are surrounded with and supported by brick-work, but in such a manner as to leave an annular fire space all round the lower cylinder, and also around part of the upper cylinder. Through the annular space surrounding the lower cylinder he carries an annular cylindrical and concentric water chamber, extending from the fire-box to nearly the truncated cone above mentioned, and bisecting the lower annular space vertically. The flames and gases are thus forced to pass up between the inside of the annular water chamber and the small cylinder of the main body, then strike against the truncated cone bottom, pass round the lower portion of the upper cylinder, and finally escape down along the outside of the annular water chamber into a flue or flues. By this mode of conducting the combustible gases and other products of combustion, a great saving in fuel and consumption of smoke is effected. The annular water chamber is in constant communication with the upper portion of the main body of the boiler, by means of elbow-pipes passing through the annular fire space.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—The gales, winds, and unsettled weather foretold in my last two letters have occurred in their order. The severe gales foretold for about the 13th and 18th nearly three weeks ago, are now solemn facts, and show the progress I have made in meteorological science, however officialism may attempt to disregard it. To all appearance, another comet is approaching the sun, and I now venture to predict that the motion of that body will be direct. The next gales are due about the 23d and 24th, severe; strong winds or gales again about the 29th and 31st. The weather more or less unsettled to the end of the month.

G. SHEPHERD, C.E.

26, Throgmorton-street, Oct. 17. Author of “The Climate of England.”

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NOTICE.—The OFFICE of the CATHEDRAL MINING COMPANY is REMOVED to 31, NEW BROAD STREET, LONDON, E.C. October 17, 1862.

HY. E. NICOLLS.

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	COPPER.	2. s. d.	BRASS.	Per lb.
Best selected	101	0 0	—	—
Tough cake	98	0 0	—	—
Wire	98	0 0	—	—
Tubes	101	0 0	—	—
Copape	—	—	FOREIGN STEEL.	Per Ton.
ditto wire	0	1 1½	Swedish, in kgs (rolled)	10 14½—
ditto tubes	0	1 1	ditto, (hammered)	10 14½—
Sheeting	105			

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London : Published at the MINING JOURNAL office, 26, Fleet-street, E.C.

A CAUTIOUS MAN.—Many speculators in mines having written to the writer of the letters signed "A Cautious Man," asking him if it would be agreeable to him to transact their mining business for them, and to give them information when he has, by his inspecting agents, fixed on a good mine to speculate in, informs them, and the public generally, that he will have no objection to act as a broker for them in any mines he may recommend, but in no others.

As soon as possible he will take office in the City, but, in the meantime, requests that all letters for him may be directed to his private residence.

Those speculators who may entrust him with their business may rest assured that he will make purchases for them in none but good mines, such, in short, as the most experienced mining inspectors in Cornwall would acknowledge to be good. The bulk of calling mines (with but few exceptions), and the trash, he will leave to others to speculate in.

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Notices to Correspondents.

PEAT FUEL.—I am greatly obliged and pleased at finding both my letters inserted in this week's "Peat Fuel," and concur in all that has been said relative to the great advantages that would result to the Peninsular and Oriental Company, to whose especial notice and attention the article, and its facts contained, would at once recommend it for practical application of the peat fuel, and in supply of which I should recommend its being pressed into balls or spheres, for that shape would afford a free circulation of flame through the furnace, and economise the fuel consumption, which would be a decided advantage. The Government authorities should be brought acquainted with the proposed economy of fuel, by substituting peat for coal. Mr. E. E. Allen, in a recent lecture at Cambridge, on Economising Fuel, by proper arrangement of boilers and steam-gear actions, stated the yearly vote for coal to the British Navy exceeded 300,000, per annum, and would probably soon rise to a million sterling and upwards, by rapid increase of steam navy. One-half of this great outlay could be saved, and other certain and proved benefits and advantages be obtained at the same time. Every exertion should be made in commercially working the peat bogs into fuel without delay. Produce the article, and the demand for it will soon show its advantages are appreciated.—W. AUSTIN, C.E. : Milford, South Wales, Oct. 13.

COAL SHAFTS.—I detected an error or omission of a figure 1 in front of 32,600 bricks, in my letter on Coal Shafts, in last week's Journal; it should be 132,600 bricks (1560 x 86 x 132,600 bricks). It was possibly my omission in copy sent.—W. AUSTIN, C.E.

THE NORTH CORK MINING COMPANY.—In your remarks in last week's Journal, upon the cause of Tustin's J. Jennings, great injustice is unconsciously done to a very worthy man, who you admit is personally unknown to you. The defendant in a man just past the prime of life, and his chief characteristic has always been extreme conscientiousness. He has been known to members of my family from boyhood. While still a young man, his father obtained him a good Government appointment in South America, but learning on the voyage that it was almost a sinecure he threw it up, and insisted upon being sent home by the first opportunity, saying he would not take the Queen's money without working for it. At another time he had a good situation as tutor in a wealthy family, but, considering he was too well paid for the work required of him, he threw it up also. Of late years he has been a very needy man, but has always preserved his integrity unimpaired. But in what, Sir, does the late trial pre-judge him? Does it not show that he still considers his own interest and reputation of no account in comparison with the interest of the public? How he became connected with the so-called mining company I know not. There appears to have been a real mine of some value in the case, and up to a certain point Mr. Jennings may well have considered that all was going on fairly enough, and that a legitimate mining concern was about to be offered to the public; but it is perfectly clear to me that the instant his eyes were opened, and he thought himself in peril of aiding in a swindle on the public, he not only threw up his engagement (and with it his livelihood) at the bidding of his conscience, but determined to quash the whole scheme, and so prevent the public being induced to part with their money for trash, and that he might gain this end did not hesitate even to suffer a charge of stealing to be brought against him. Surely, Sir, Mr. Jennings deserves the thanks of all who are interested in legitimate mining for this service, and not to be stigmatised as a concocter of bubble companies. I am sure, Sir, that not one penny of that 1997 will he keep which does not lawfully belong to him.—J. JENKINS.

We shall publish Mr. Shepherd's paper on the "Long Wall" System of working a colliery in next week's Journal.

COPPER.—In explanation of the remarks contained in last week's Journal, it is, perhaps, necessary to state, so as to avoid any misconception being placed on our words, that they are solely meant to apply to the present objectionable system of trade, and not in any way whatever intended as personal allusions. No such design or wish would be entertained for one moment, and to do the smelters justice it is but right to state and make known that their individual transactions ever have been carried out with the strictest honour and integrity; that there is scarcely any class of men more wealthy and prompt to their engagements. The only object desired to be attained is a relaxation of those stringent terms and conditions at present exacted by the monopoly, and to establish fair and legitimate competition.

CHARLOTTE UNITED MINES.—One of your correspondents states, in last week's Journal, that notwithstanding that little can be done underground in breaking and raising ore while the 60-inch engine is being erected at Charlotte's shaft, which is also being cut down by 24 men to receive larger pitwork, there has been sold in the last four months 14011. lbs. worth of ore, &c. Now, I ask the writer whether 9121. worth of this ore was not raised whilst the mine, with the 60-inch engine, was in full operation. The ore raised in the last four months has been sold for 7871. There are two more heavy calls, inevitable, the last being covered expenses to the end of July, and the next account, ending November, must show a heavy balance against the mine. The 60-inch engine is not expected to be at work until the commencement of January, 1862, after which the lower levels are to be cleared of water, and we cannot reasonably expect the mine to be in full work until February, at the earliest, and consequently a heavy call for the four months ending March must be anticipated, after which we may hope for better times. This, I believe, to be the honest and straightforward state of the case.—AN ADVENTURER.

CHARLOTTE UNITED, and PROSPER UNITED MINES.—We have forwarded Mr. James Edwards's letter to a gentleman who is interested in the mines named, and who is well able to ascertain the value to be attached to the statements made. It seems strange that, if our correspondent held a transfer dated in August last, he did not send it to the purser for registration till about ten days ago, and after it was shown that his name did not appear in the books. We confess that we can scarcely credit our correspondent's assertion, that he bought the shares under the circumstances he states, and that he afterwards discovered the position and prospects of matters. He is evidently far too familiar with the locality and the inhabitants to allow such a conclusion to be readily adopted by impartial persons; and it is still more difficult to believe it, if we are informed correctly of the name of the transferor of the shares, and that of the witness to his signature. The strong personal divisions which exist in the district are too notorious not to show that in this case "there is much in a name." It seems further suspicious to us, that a person who had only so recently bought ten shares, at "the low price of 6s.," and having since paid only 5s. per share more, making 1s. per share, should feel such an interest as to enter so deeply and fully into matters which we should think that a bona fide shareholder would treat in a different manner, before rushing into print in a public journal. We are surprised that our correspondent should remain interested in a concern of which he gives such a description, particularly as he can get rid of his ten shares without "great" (if any) loss. In fact, no one can read our correspondent's lengthy epistle who can hesitate for a moment in perceiving that his object is not that of a disinterested shareholder. We will only further answer his questions by saying that a statement of the liabilities and assets, and a list of the debitors, were produced at the meeting.

"A CLERK."—The company mentioned is highly respectable, and the prospects appear encouraging.

NORTH CARADON.—I was a little surprised at Mr. Fletcher's contradictory letter of last week. That I was employed by Mr. Wedge, who, with Mr. Fletcher, is a projector of the mine, to inspect the property about two months since, is a fact I can show by his letters, the first of which desired me to inspect it, and give a strong report thereon; accordingly I went to the mine, where I found Capt. Pomroy, with a prospectus, containing a report with my name attached thereto. At this, of course, I was much perplexed. I, however, went over the ground, made out my report, and sent it to Mr. Wedge, at the same time asking for an explanation of his very strange conduct in appending my name to a report which had not been written by me, when he, in reply, explained that mine was simply an anticipated report. At this I was disengaged, more especially as he had made statements in the report totally at variance with the truth; and seeing these prospectuses were being issued to the public, I wrote, informing Mr. Fletcher of the circumstance, from whom I received the unsatisfactory answer that I should never "make myself white by painting others black." These, as I have before said, are facts which I will, if necessary, prove by their own letters. When my name is thus used to deceive the public, I feel it my duty to prevent it; and I trust, Sir, that it is as compatible with your position, will favour me by giving space for my letter. It is true they have, since my complaint, issued a new prospectus, in which the report bearing my name is omitted, for a reason they are well aware of.—T. PAREYN : Oct. 15.

Siemens' REGENERATIVE FURNACE.—We do not recollect to have seen, nor do we know of anything of the pamphlet referred to. "A Subscriber of Many Years' Standing" (Paris) had better address the inventor—Mr. C. W. Siemens, 3, Great George-street, Westminster.

MINING REMINISCENCES, and "A CAUTIOUS MAN."—Permit me to thank "A Cautious Man" for the advice contained in his letter in last week's Journal, and to say that I had come to no conclusion regarding the number of progressive mines which would one day enter the Dividend List. All that I meant to infer by reference to the last page of the Journal was that the proportion of non-dividend to dividend mines is very great, and therefore, by investing in ten or twelve mines, well recommended (as are those I have selected), the chances of success are greatly increased. By reference to the advertising pages of the Journal, I find "A Cautious Man" is about to become a broker. This is to be regretted, as in the estimation of the public a high moral and philanthropic position he has assumed in the pages of the Journal will be looked upon as a clever method of advertising; in fact, it has already been hinted to me that such is the case, and an illustration of this referred to in his very strong recommendation of West Wheal Trevelyan, which, I must admit, he goes out of the way to recommend while advising young speculators in last week's Journal. "A Cautious Man" tells us, on Aug. 2, that he "bought up every share (in West Wheal Trevelyan)" he could raise money to pay for, and on Oct. 11 recommends rich men to purchase from 200 to 300 shares, and poor men from 10 to 20! It is quite natural that selfish men will see in this a good word for the victims of fraudulent brokers, and two for "A Cautious Man's" own pocket.—SPERO.

MINING REMINISCENCES.—We have again this week received a number of letters, detailing transactions with certain persons who are constantly seeking to entrap the unwary, by fallacious circulars, and specious advertisements in the country papers. As we have before stated, many of these communications refer to matters of such a nature that we cannot publish them, and we can only recommend, as general advice, that when a real wrong can be clearly made out the case should be placed in the hands of a solicitor, who will know how to deal with it. One correspondent says—"Let 'A Cautious Man' prove his sincerity by taking up one of the transactions he mentions, and prosecute the offender; he will find himself very amply compensated by the public."

STANLEY MOUNTAIN COMPANY.—Not having been able to attend the meeting lately held of the proprietors of this company, for my own information and that of the other shareholders absent on the occasion, I beg to ask the following questions, which are necessary from the very meagre details given by the directors in the annual report:—1. How is it that, though a dividend was guaranteed the first year, none has been declared, or any allusion made thereto in the annual report?—2. What is the meaning of the enormous sum of over 2000/- set down under the head of "general management," of which no details are given, as from the small quantity of work done, and the difficulty of its performance, from the hardness of the rock operated upon, it is by no means satisfactory that such a sum should be allowed to pass without a question?—3. How comes it that the shareholders are to be committed to an expenditure of 5000/-, to be paid to "Mr. Roberts," for the construction of a tramway, when, so far as we know, the quality of the slate has not been proved, nor has it been stated that a single slate has been made, or can it even be gathered from the report of the directors that any slate exists at all in the so-called "Stanley Mountain"?—4. Why is it that a call of 1/- per share was made (on Aug. 13) a month before the meeting of shareholders, of which no notice was till after that meeting, simply because it was not made known to the proprietors till after that meeting, they being ordered to pay up at a few days notice? I do not wish to impute incompetency to the management, but for their own sake, and the sake of the shareholders, satisfactory details should be submitted, so as to show what is in this a good word for the victims of fraudulent brokers, and two for "A Cautious Man's" own pocket.—SPERO.

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At the conclusion of his essay, Mr. WOODHOUSE recommends attention of the meeting an ingenious apparatus for ascertaining the quantity of air in mines, and regulating the firing at the furnace, the invention of Mr. BUXTON, viewer at Springfield Colliery, Staveley. A paper instrument was read by Mr. W. F. HOWARD, and we described it fully in the Journal of Aug. 16 last. Next in order comes a description of the winning and working of the five pits in the important colliery of Cinderhill and Babbington, near Nottingham. The writer is Mr. STUART SMITH, of Derby, who relates in a rather interesting way the system adopted in getting these collieries into play, the extent of the various stages in their development, and the economy of the work at the commencement to the present time. Mr. G. FOWLER, of Ashla-Zouch, follows with a narrative of the method adopted in working the Main Seam of coal at Moira, in Leicestershire, and some specimens of the coal measures are stated, and one or two important corrections of the geological maps, issued under the authority of the Government, are pointed out. The next paper is a very useful one, contributed by the celebrated mining engineer, Mr. J. T. WOODHOUSE, of Derby. Mr. WOODHOUSE narrates the progress of coal mining in the counties of Derby and Nottingham from the earliest known period down to the present time; and for the benefit of the northern members of the institute, to whom the system somewhat unfamiliar, he gives a copious account of the mode of working by long wall.

As a discussion on the comparative merits of the two systems (Pillar and Long Wall) is at present progressing in our columns, we may add that Mr. WOODHOUSE has to say on the subject:—

Pillar working has many advantages, and long wall has its peculiarities; but it is clear that either mode can be adopted at the pleasure or caprice of the viewer. Some (for instance, the cubical in structure) are best worked on the pillar system; and on the other hand, the long-grained, hard-splint coals are best worked by long wall. The conclusion is that no general rule can be laid down. As in civil engineering, the system to adopt the means to the end to be attained, so in coal mining long wall working must be applied to meet the circumstances of the case.

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ing to his folly, lest he be wise in his own conceit." (Prov. 26 chap. 5 v.) In our next article we will resume this subject more in earnest.

REPORT FROM NORTHUMBERLAND AND DURHAM.

OCT. 16.—The Coal Trade is considered a little more brisk here, and the Coke Trade continues very good indeed. The Monkwearmouth Colliery has again resumed work in the Bank Pit, as before the late accident. The repairs and alterations in the up-cast shaft are being continued.

THE IRON TRADE: ITS PAST AND PRESENT STATE AND PROSPECTS.

The Iron Trade of this district only commenced with the present century, and up to the year 1845 was comparatively of little importance, the total number of furnaces then in blast being 37, at the undermentioned places. [These figures are taken from the *Newcastle Daily Chronicle*]:—

1.—Lemington, commenced in 1800	Furnaces 2
2.—Birtley,	1827
3.—Ridgeway,	1835
4.—Hareslaw,	1836
5.—Wylam,	1836
6.—Consett,	1839
7.—Walker,	1843
8.—Stanhope,	1844
9.—Crookshank,	1845
10.—Tow Law,	1845-46
11.—Witton Park,	1845-46
	4=37

The iron ore for the supply of those furnaces was derived from various sources, but chiefly from small bands found in connection with the coal measures of the district. Some of those bands are found above the High Main seam in the Wear district, and about five miles south of the Tyne. Those bands were worked in connection with the High Main seam pillars, and also the fire-clay underneath the seam for many years near the Birtley ironworks, for the supply of the furnaces there. Those bands were tolerably rich in them, and good iron was produced from them; but generally the cost of working them was somewhat high—from 5s. to 8s. a ton for the raw ore was a common price. The celebrated Consett Ironworks was commenced before the close of this era in iron-making, and a large acreage of the clay iron ore was worked and smelted there, at it is supposed, a ruinous sacrifice, as the ore was produced only at a cost of 8s. per ton. The Hareslaw Ironworks, on North Tyne, were also established with a view to work the local veins of iron ore and smelt them on the spot, but here the ore was also costly, and the want of railway accommodation rendered the undertaking a complete failure, after the expenditure of 150,000. The same remarks apply to the Brennaburn Ironworks, near Rothbury, on the Coquet. The discovery of the abundance and extent of the iron ore veins of Cleveland, as is well known, at once gave a great impetus to ironmaking in the district. We have seen that the number of furnaces in blast in 1845 were 37; since that period their increase has been very striking. The following is a list of the new furnaces since 1845 to the present time:—

MIDDLEBRO' AND PORT CLARENCE.	
Bolckow and Vaughan, Eston	Furnaces 9
Samuelson and Co., South Bank	3
Edwin Malcolm and Co.	2
Dunning and Co., Normansby	2
Cochrane and Co., Ormesby	4
Gilkes, Wilson, Rose, and Co.	5
Bolckow and Vaughan, Middlesbrough	3
Hopkins and Co.	2
Bell Brothers, Port Clarence	2
REMAINDER OF NORTH OF ENGLAND.	
Whitwell and Co., Thornaby	Furnaces 3
Holdsworth and Co., Stockton	3
Warner, Lucas, and Co., Norton	2
Baston and Co., Witton	2
Marchioness of Londonderry, Seasham	3
Palmer and Co., Jarrold	3
" " Wallsend	2
Loft, Wilson, and Bell, Walker	5
H. Lee, Patterson, and Co., Yelling	2
Bellis, Hawks, and Co., Washington	2
Tyne Iron Company, Tyne	2
Bell, Brothers, Wylam	1
Birtley Ironworks	3
Derwent Iron Company, Consett, &c.	18
Weardale Iron Company, Stanhope	1
" " Tow Law	5
Bolckow and Vaughan, Witton Park	4
Morrison and Co., Ferry Hill	2
South Durham Iron Company, Darlington	3
Iron Company, Hinderwell	2
Clay-lane, Middlesbrough	1=70

This gives a total of 104 blast furnaces in the north at present, against 37 in 1845—an increase of 69 in the whole North of England in 17 years.

The Iron Trade continues to improve, and at many of the works orders are on hand that will require some months to execute. This is the case at Stockton, Middlesbrough, and the neighbourhood. The Rosedale iron ore is coming more into use, and as its valuable qualities become known is more enquired for. The ordinary iron ore of Cleveland produces about 33 per cent. of iron; and the hematite ores of Cumberland have been in much request for the purpose of mixing with the Cleveland and other local ores, in order to produce a good brand. But this practice is getting into disfavour: the reason alleged being that the hematite ore does not amalgamate thoroughly or properly with the other ores. It is of fine quality, but it fuses at a much lower temperature than the other ores used, and the result is not an iron permeated and radically improved by the admixture of hematite, but something approaching to samples of each distinct variety. The Rosedale iron ore is, therefore, likely to be largely used for admixture with inferior ores, as it is of fine quality, is highly magnetic, and it mixes more freely and thoroughly with other ores in the furnace. This ore, when smelted alone, produces about 45 per cent. of excellent iron. The discovery of this rich and extensive deposit of ore has, therefore, been most opportune for the iron trade of the North, as, by an admixture of it with the ordinary ore of the district, a good iron is produced without the use of hematite or other expensive ores, brought from a great distance. What dimensions this already huge trade may arrive at is, of course, impossible to foretell, but that it will continue to progress and expand for a long period to come there can be no doubt whatever. The iron ore of Cleveland is evidently inexhaustible, and the supply of coal and coke is sufficient for a long period to come.

The works of Messrs. Bolckow and Vaughan, at Middlesbrough, are, perhaps, most highly favoured as respects position and facilities for getting all the requisites for iron making at a cheap rate. Eston may be considered the centre of this trade, as at that point the ore can be put into the furnaces at a lower rate, perhaps, than at any other point in the North, the cost of the ore there put into the furnaces being only 2s. 6d. per ton. Few can expect to achieve this, but in the district generally the prospect for the iron trade appears to be good. Abundant supplies of all the raw materials are to be had at a moderate cost, therefore competition from other districts need not be feared. The materials at the Hareslaw Ironworks, on the North Tyne, have been sold. A rumour has been current that these works are to be again started, under the auspices of a powerful party; but the chance of ironmaking proving profitable in those outlying districts is certainly not good. The large works at Consett are still carried forward, but what their ultimate fate may be still appears doubtful. The works are evidently kept alive by the manufacture of large and heavy iron, such as rails of the largest sizes, plates for shipbuilding, &c.; but the situation of the works, and the cost under the head of railway dues for the conveyance of raw materials, as well as manufactured articles, necessarily subject them to a heavy competition. Pig-iron could hardly be manufactured at those works at a profit. However, they have become celebrated for the manufacture of heavy work, and every appliance for making those articles are to be found on the works, so that they may continue to be carried on profitably; indeed, it is understood that a considerable profit has been realised during the last half-year, principally by the manufacture of plates for shipbuilding and for armour.

Mr. W. Armstrong, of Wingate Grange, chief viewer of the Castle Eden Colliery, has been presented by the workmen with a very appropriate testimonial on the occasion of his leaving the colliery. The testimonial consisted of a beautiful silver safety-lamp, and was given to Mr. Armstrong in recognition of his services as President at Castle Eden Colliery Literary and Reading Society.

A survey of the Hartlepool Ironworks has been made by the Admiralty Engineers, whose report upon the work done, as well as upon their capabilities for doing work, has been submitted to the Lords Commissioners of the Admiralty to place the names of the proprietors, Messrs. Thomas Richardson and Sons, upon the Government list of engineers for the construction of marine engines for Her Majesty's Navy.

NORTH OF ENGLAND INSTITUTE OF MINING ENGINEERS.

The usual monthly meeting was held on Oct. 4, at the rooms of the Institute, Newcastle-upon-Tyne, the President (Mr. NICHOLAS WOOD) in the chair. After the transaction of routine business, the President brought under the notice of the Institute the question of the invitation about to be given by the Literary Society and other bodies to the British Association to hold their next annual meeting in Newcastle; and a resolution was passed "to co-operate, with other bodies, in inviting the British Association to hold their meeting of 1863 in Newcastle-upon-Tyne, and that Mr. Isaac Lowthorn Bell be requested to lay the same before the authorities. The President then expressed his sorrow at having to communicate to the members the lamented death of one of the vice-presidents, the late Mr. William Anderson. Mr. Anderson was, he said, the oldest viewer in the trade, and universally beloved and esteemed. He would not dwell at greater length on this subject now, but would do so at the next meeting.

THE HARTLEY ACCIDENT.—The discussion on the Hartley Accident was then opened. Mr. G. B. FORSTER said that nothing had transpired since the paper was written which required any remark from him; but he would be glad to answer any questions which any of the members might wish to put.

The PRESIDENT said that they had all read the paper with interest. Both the accident itself, and the number of deaths consequent on it, were unprecedented. There were, however, features in it which were well worthy of attention. In the first place, it had brought about a legislative Act, which required in future two shafts in every mine; and he believed he was correct in stating that the Legislature had been met by the coalowners universally in a liberal spirit, and the latter had themselves forwarded this matter.

Mr. G. B. FORSTER said it should be stated that, in the case of the Hartley Mine, at the time of the accident the proprietors were draining the workings of an adjacent mine which, when affected, would have given them another shaft.

The PRESIDENT stated that there were four distinct questions in this most lamentable accident, all of which were necessary to bring about the serious results which had occurred:—1. The breaking of the beam.—2. Its falling down the shaft.—3. In doing so, its carrying away so much of the timber as to almost hermetically seal it; and—4. The formation of the poisonous gas, by which it was generally understood the lives had actually been lost.

On these heads the following suggestions occurred to him:—1. The substitution of some other material than cast-iron for very large beams.—2. The using of pack-chucks, or other means, for preventing any portion of a beam, if broken, from going down the pit.—3. Securing the sides of shaft with stone instead of timber.

In answer to a question from a member,

Mr. G. B. FORSTER said it was his opinion that the accident was primarily caused by the breaking of one or more of the pumping spears. There were striking evidences in the engine that the beam had come "into the house" with great violence; and that the force of the concussion, when the catch-pin struck the spring beams, had snapped the beam in the centre.

Mr. ATKINSON (Her Majesty's Inspector of Mines for South Durham) corroborated Mr. Forster's statement. The cap fitted to the top of the piston-rod was broken by the force.

Mr. BACOUR (Her Majesty's Inspector of Mines for South Wales) agreed with the President that some mechanism could be made to prevent beams from falling down the shaft if broken; also thought it advisable that all beams should be made of wrought-iron. He had recently seen at North Seaton Colliery a magnificent wrought-iron beam, made by Mr. Fairbairn. He was sure that any suggestions made by the members of the Institute would be listened to attentively by those interested in those matters.

The PRESIDENT thought they were as yet hardly in a position to recommend that all beams should be made of wrought-iron. It was, however, a very proper question to be entertained at this Institute; and he hoped some member would raise its discussion by contributing a paper on the subject.

In reference to the nature of the gas which had been met with in clearing the shaft, Mr. G. B. FORSTER stated he had been informed by two men who had worked in the Hartley Mine, that, in driving some leading places, they had felt similar physical effects to those experienced by this workman engaged in clearing the shaft after the accident. Their lights were not at all affected, but they became sick and giddy.

Mr. ATKINSON thought that, under certain circumstances, this might be attributable to the gases generated by the blasting-powder which they used.

Mr. BROUGHT asked if it was clear that this gas, which was so fatal, was carbonic oxide and not carbonic acid?

Mr. DAGLISH said that the action of carbonic acid gas, when so diluted as not at all to affect the burns of emetics, as in this instance, could not have produced the very rapid effect on those exposed to its influence whilst clearing the shaft.

Mr. ATKINSON said that, of course, the furnace was burning when the men went down.

When the shaft became impervious to the passage of the smoke, that and the heat would hang about in its vicinity, and so prevent anyone from approaching at once to put it out; and, at the same time, from the deficient supply of fresh air, the circumstance would be most favourable for the generation of carbonic oxide.

In answer to a member, Mr. G. B. FORSTER stated that there was no evidence whatever for the supposition that any coal was on fire in the mine previous to the accident.

Mr. BROUGHT was of opinion that carbonic oxide was not formed naturally in coal mines.

Mr. DAGLISH thought the proof of this was only a negative one. In the passage of wood film into coal, large quantities of oxygen must have been eliminated, and it was not impossible that carbonic oxide was a product; and it now appeared that, in a state of vitality, plants did eliminate carbonic oxide.

Mr. BACOUR then read a letter, which had appeared in the *Lancet*, from Mr. H. Davidson, surgeon, Seaton Delaval, giving a detailed account of the effect of the gas on those working in the shaft, and the appearance of those who were killed in the mine by it. The letter will appear, together with the discussion, at full length, in the Society's "Transactions." The meeting then broke up.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

OCT. 16.—There is nothing new to report respecting the Iron Trade in this county, and the only statement called for is that the improvement previously noted continues. For sheets there is a particularly good demand, but for other kinds of iron there is a fair enquiry, and full time is now the rule at the ironworks in both the north and south of the county. The demand for merchant bars has been slowest in improving, but for this class of iron there is more enquiry, and current rates are from 5s. to 7s. 6d. per ton higher than they were three, or even two, months ago. The Hardware Trades of South Staffordshire maintain a degree of improvement. The advances from Australia and China are, on the whole, favourable, and the Calcutta merchants are ordering more goods. The home demand is also rather better than it was. The rise of 4*l.* in the price of tin, the second in three weeks, is an indication of growing confidence.

A sad accident occurred on the 8th inst. at an ironstone pit at Corby's Hall, near Kingswinford, the property of Messrs. Mathews and Bond. Two men—Mesach Briscoe, 55, and Samuel Neath, 24—were repairing the shaft, and were being raised by a wire-ropes to the surface. Just as they were within sight of the shaft the wire-ropes snapped, and they fell to the bottom, a depth of 180 yards. It is needless to say that they were killed, and the body of Briscoe was literally dashed to pieces. Both men leave wives and families. An enquiry was opened before the deputy-coroner on Friday, when the only evidence taken was that of the banksman. The wire-ropes which broke had been taken to the pit from another pit the day before the accident, and was then said to have been in perfect repair. When placed over the shaft in which the accident occurred, however, one of the deceased men noticed that there were defects in it, which were pointed out to the engineer, and, it is said reported by him. It was, however, stated that the fracture did not occur where any external appearance had indicated a weak place. The wire-ropes were made by highly respectable manufacturers, and had not been very long in wear. The enquiry was adjourned for a fortnight, when no doubt, the matter will be fully investigated. The question is what is the safest winding rope, or chain, is one of considerable interest. The preference appears to be between three—the hempen rope, the wire-ropes, and the three-link chain. In the present instance the rope broke off perfectly short.—A boy named Daniel Ford, a gin-driver, was killed near Moxley, on the 10th inst., by falling down the shaft of the colliery at which he was employed. It was a working shaft, and he went and knelt down to shout to the lads at the bottom, when he fell down and was killed. The banksman stated at the inquest that he had repeatedly cautioned the youth not to do so, and had threatened to punish him if he persisted, to which the lad replied—"If you touch me, and make any mark on me, I'll have you up to the ruck of bricks." The latter phrase is a South Staffordshire mode of describing the police station. Formerly, youths were subject to very severe and shameful treatment, but magisterial interference, kindly meant, has in some cases rendered it difficult to deal with rough lads employed at collieries and works.

An extraordinary accident happened on Monday last at the chain works of Messrs. Bayliss and Co., Wolverhampton. During the time allowed for breakfast some lads were amusing themselves chasing each other in one of the shops, when suddenly the floor gave way, and three of the lads were precipitated down an opening 34 feet deep. One died almost immediately, and the others were seriously injured. At the inquest Mr. Baker, the Mines Inspector, said pits were worked there as lately as in 1845, and he had no doubt that the sinking arose from a shaft having been imperfectly filled up, so as to leave no external indication of its existence. A miner stated that his father had worked a shaft there, and he remembered that there was a scaffold in the pit, and probably the shaft was fitted up from the scaffold, which having now given way had caused the accident.

An effort has been made in Birmingham to secure the payment of accounts and wages on Friday, or early on Saturday. A committee was appointed some time ago to make enquiries on the subject, and at a meeting held this day week in the Town Hall they reported, as the result of careful enquiries, that the general feeling of the town was in favour of paying accounts on Friday, but several of these persons paid early on Saturday. Resolutions were passed in favour of paying accounts on Friday, and suggesting that bankers and traders would facilitate the change by closing their places of business at two o'clock on Saturday. With regard to wages, the following resolution was unanimously passed on Friday:—

"That whilst advocating the great importance of paying wages on Friday where practicable, and in no case later than two o'clock on Saturday, this meeting is of opinion that the question of paying the workpeople on Friday should be left to individual manufacturers, on the ground that the general adoption of any particular plan is not necessary, in order to enable a portion of the body to carry out what they deemed a most desirable system."

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

OCT. 16.—The Iron Trade during the past week has shown some indications of improvement, both as regards the home and export demand, and a more cheerful tone pervades the trade. A greater number of orders have been given out for bars and plates for shipbuilding. The Steel Trade continues to show an improvement, though limited in amount. The orders from the North of Europe and from France are largely in excess of what

they were, however, features in it which were well worthy of attention. In the first place, it had brought about a legislative Act, which required in future two shafts in every mine; and he believed he was correct in stating that the Legislature had been met by the coalowners universally in a liberal spirit, and the latter had themselves forwarded this matter.

The PRESIDENT said that there were four distinct questions in this most lamentable accident, all of which were necessary to bring about the serious results which had occurred:—1. The breaking of the beam.—2. Its falling down the shaft.—3. In doing so, its carrying away so much of the timber as to almost hermetically seal it; and—4. The formation of the poisonous gas, by which it was generally understood the lives had actually been lost.

The PRESIDENT stated that there were two other matters which had occurred:—1. The breaking of one or more of the pumping spears. There were striking evidences in the engine that the beam had come "into the house" with great violence; and that the force of the concussion, when the catch-pin struck the spring beams, had snapped the beam in the centre.

The PRESIDENT said that they had all read the paper with interest. Both the accident itself, and the number of deaths consequent on it, were unprecedented.

Mr. FORSTER said it was his opinion that the accident was primarily caused by the breaking of one or more of the pumping spears. There were striking evidences in the engine that the beam had come "into the house" with great violence; and that the force of the concussion, when the catch-pin struck the spring beams, had snapped the beam in the centre.

The PRESIDENT said that they had all read the paper with interest. Both the accident itself, and the number of deaths consequent on it, were unprecedented.

Mr. FORSTER said it was his opinion that the accident was primarily caused by the breaking of one or more of the pumping spears. There were striking evidences in

THE SOVEREIGN GOLD MINING COMPANY (LIMITED)

Incorporated under the Joint Stock Companies Acts, 1856-57.

Capital, £50,000, in 50,000 shares, of £1 each.

Deposit on application £5., and £5. on allotment.

DIRECTORS.

RICHARD HALLETT, Esq., 20, St. Helen's-place, Bishopsgate.

CHARLES ROBERT ESSEX, Esq., East India Chambers, Leadenhall-street, City (Director of the Worthing Mining Company).

GERALD RALSTON, Esq. (Consul-General of Liberia), Tokenhouse-yard.

HENRY JORDAN, Esq., 7, Albemarle-street, Piccadilly.

W. G. GATLIFFE, Esq., 27, Leadenhall-street (late of the firm of Cunard and Co., King William-street).

BANKERS—The City Bank, Threadneedle-street, City, E.C.

SOLICITOR—D. P. Hindley, Esq., 10, Old Jewry Chambers, City, E.C.

SECRETARY—Mr. Henry Peet.

OFFICES—10, OLD JEWRY CHAMBERS.

The object of this company is to purchase and work a most extensive property in North Wales, containing five lodes, one of which is the largest lode of gold-bearing quartz in the district, being upwards of 20 ft. in width, upon which the operations of the company will be chiefly directed.

The property is situated about three miles from Dolgelly, and comprises nearly 400 acres, being about double the extent usually granted by the Crown Commissioners, and is held from them under an agreement for a lease for 21 years, at 1-12th dues. It immediately adjoins the Prince of Wales Gold Mine, from which samples of quartz have produced from 300 to 400 ozs. of gold per ton (the shares of this company, with £2 15s. paid up, are now selling at £25 per share), while the Imperial Gold Mine, from whence 8 ozs. of gold per ton has been obtained, adjoins the Prince of Wales to the north. The lodes of both these mines traverse the Sovereign Gold Mine. A little further to the west are the celebrated Vigras and Clogau Gold Mines, and there is no doubt the lodes in all the above-named properties are identical.

The set contains five known lodes; the main lode (which is a continuation of the rich lode in the Prince of Wales), varies from 20 to 25 ft. in width, and produces at the surface 1 oz. 12 dwt. of gold per ton. The facilities for working this lode are unprecedented, as the lode cuts out at the surface to a very great extent, and thousands of tons of quartz can be broken without the labour of sinking; and as the lode is situated on the top of a mountain with a very steep ascent, there can be levels driven to intersect it at the depth of 1000 feet, while returns are being made from the top by open workings. There is ample water-power all the year round, passing through the property, to carry on all the crushing required, and it is the intention of the directors, as soon as sufficient capital is subscribed, to erect a large number of stamps at once, as the assays already made are sufficient to prove that regular returns of gold can be made.

Several tons of quartz have been broken from the main lode lately, proving highly auriferous; and from samples taken from the greatest depth the lode has been opened on, the following are the results of examinations made by Messrs. Longmaid and Lisabe.

City Laboratory and Assay-office, 31, Throgmorton-street, London, Sept. 4, 1862.

I hereby certify that I have examined three samples of quartz received from the Sovereign Gold Mine, and that they contain as under:—

No. 1.—Lead	42 1/2 percent.
Gold	4 ozs. 15 dwt. 16 grs. per ton.
Silver	12 ozs. 8 dwt. 6 grs. "
Lead	2 ozs. 5 dwt. 17 grs. "
Silver	2 ozs. 9 dwt. 19 grs. "
Lead	7 ozs. 0 dwt. 11 grs. "
Silver	0 ozs. 19 dwt. 14 grs. "

(Signed) JOHN LONGMAID.

25, Moorgate-street, City, Sept. 18, 1862.

The specimens of gold-bearing quartz from the Sovereign Gold Mines I have ascertained contain over 3 ozs. of gold to the ton of ore, or 20 cwt.

(Signed) FRANCIS LISABE.

Since the above results were obtained, a deputation from the board of directors have visited the mines, and the following are the results obtained from quartz broken by them out of the main lode at the surface.

Assay-office, 75, and 79, Hatton-garden, London, Sept. 26, 1862.

The sample of quartz from the Sovereign Gold Mine has been carefully crushed and assayed, and found to contain the following proportions of gold, silver, and lead:—

Gold	1 ozs. 12 dwt. 0 grs. per ton of 20 cwt.
Silver	3 ozs. 5 dwt. 12 grs. "
Lead	4 1/2 per cent. "

(Signed) JOHNSON, MATTHEY, & Co.

The directors have secured the services of Capt. Thomas Faull, late manager of the Almaden Mines, California (one of the most profitable mines in that country), as head manager, and there is no doubt, from his practical experience, the works will be carried out in such a manner as will speedily lead to profitable results.

The directors guarantee that a statement of the financial position of the company, with full particulars of the proceedings and results of the workings at the mines, shall be made up every three months, and sent to each shareholder. The meetings of the shareholders will be held half-yearly.

Prospectuses, plans of the Clogau district, and forms of application for shares, may be obtained at the offices of the company, where specimens of the gold quartz broken at the mine may be seen.

THE ATLAS MINING AND SMELTING COMPANY (LIMITED).

Notice is hereby given, that the Directors are PREPARED to RECEIVE APPLICATIONS for the remaining SHARES in this company from other than original shareholders of the former company, and to the allotments made a bonus of 25 per cent. in shares will be added. Prospectuses, &c., can be had on application being made to the offices of the company.

7, George-yard, Lombard-street, London, E.C. GEORGE F. GOODMAN, Sec.

N.B. The present week's report from the mines appears in the Mining Correspondence.

THE SOUTH KENSINGTON HOTEL COMPANY (LIMITED).

Capital £100,000, in 10,000 shares of £10 each. Deposit £1 per share, payable on application, and £2 on allotment.

To be incorporated under the Joint-Stock Companies Acts of 1856 and 1857, whereby the liability of each shareholder is strictly limited to the amount subscribed.

PATRONS.

Lieutenant-General Sir JAMES OUTRAM, Bart., G.C.B., K.S.I., D.C.L., 10, Queen's-gate-gardens, South Kensington.

Sir ARTHUR BULLER, M.P., 20, Queen's-gate-terrace, South Kensington.

The Hon. CLAUDE BOWES LYON, 27, Queen's-gate-gardens, South Kensington.

GEORGE FREDERICK ANDERSON, Esq., 34, Nottingham-place, W.

WILLIAM HALLOWES BELL, Esq., 1, Queen's-gate-terrace, South Kensington.

EDMUND HALSWELL, Esq., J.P., D.L., F.R.S., 26, Kensington-gate.

HENRY KINGSFORD, Esq., 6, Queen's-gate-gardens, South Kensington.

Capt. THOMAS NETHERTON LANGFORD, R.N., 12, Queen's-gate-terrace, South Kensington.

CHARLES MILLETT, Esq., 10, Queen's-gate-terrace, South Kensington.

THOMAS VAUGHN MORGAN, Esq., Beauvoir Lodge, Chelsea (Messrs. Morgan Brothers, Bow-lane).

FREDERICK PARTRIDGE, Esq., 13, Queen's-gate-terrace, South Kensington.

Capt. BEDFORD PIM, R.N., F.R.G.S., Tathwell House, Belsize-park.

Colonel JOHN H. PRINGLE, 3, Queen's-gate-terrace, South Kensington.

GEORGE WOOD, Esq., 2, Queen's-gate-terrace, South Kensington.

PHILIP WRIGHT, Esq., 20, Adelaide-road North, N.W.

DIRECCTORS.

GEORGE FREDERICK ANDERSON, Esq., 34, Nottingham-place, W. (Director of the Brighton Hotel Company, Limited).

THOMAS VAUGHN MORGAN, Esq., Beauvoir Lodge, Chelsea (Messrs. Morgan Brothers, Bow-lane).

Capt. BEDFORD PIM, R.N., F.R.G.S., Tathwell House, Belsize-park.

ARCHITECT—C. J. Richardson, Esq., 47, Prince Albert's-road, South Kensington.

SOLICITORS—Messrs. Mayhew and Salmon, 39, George-street, Westminster.

MESSRS. HUGHES, Masterman, and Hughes, 17, Bücklersbury.

SECRETARY—James Knight, Esq.

OFFICES—4, VICTORIA STREET, WESTMINSTER.

ABRIDGED PROSPECTUS.

The object of this company is to purchase six mansions, situate in Queen's-gate-terrace, Gore-road, South Kensington, to be converted into a first-class hotel and club in connection therewith.

South Kensington has long had the reputation of being the most healthy locality in the neighbourhood of London, and it is, consequently, recommended by medical men as a winter residence for those requiring a mild and pure air. The hotel is in close proximity to Kensington Gardens and Rotten-row, and surrounded by residences of a superior class, while the Royal Horticultural Gardens, the South Kensington Museum, and the galleries of the International Exhibition, will prove a permanent attraction to visitors from all parts of the world.

A considerable portion of the capital having been already subscribed, early application for the remaining shares should be made in the form issued with the prospectus, accompanied by a cheque or post-office order, for the deposit, to the bankers, Messrs. Ransom, Bouverie, and Co., 1, Pall Mall East, London; or to the secretary, at the offices of the company, 4, Victoria-street, Westminster.

N.B.—Prospectuses will be sent by post upon application by letter to the secretary as above.

THE OXYGEN GAS COMPANY (WEBSTER'S PATENT).

OFFICES—UNITY BUILDINGS, 10, CANNON STREET, LONDON, E.C.

The cost of producing oxygen gas from the hitherto best known sources (chlorate of potash and manganese) has rarely been less than £8 per 1000 cubic feet, and the process, in point of time, most tedious.

Mr. Webster has discovered the means of producing a nearly pure oxygen gas, at less than a tenth of that cost, and in one-fourth the time.

The gas produced by this process will, in conjunction with a jet of common coal gas, melt platinum quickly, and in the gas burner or oil lamp produces a pure and brilliant light, by which the natural colours are seen as in the daylight.

The working of this process and the results hereof have been verified at different times by eminent analytical chemists, by Mr. J. H. Pepper, and afterwards by Mr. Dugald Campbell. The detailed reports of those gentlemen are open to the inspection of all who may take an interest in the subject, and the process of manufacture can be seen in London at the company's premises in Westminster, and at the foundry of Messrs. John H. Porter and Co., of Tividale, near Dudley.

It is believed that the importance of this discovery will be instantly recognised by those who, in various manufactures, are constantly seeking the means of intensifying and conserving heat, and of economising the consumption of fuel. Prominent among these are the smelters of ores and the manufacturers in metals and glass.

The Oxygen Gas Company are prepared to grant licenses for the use of their process, and to supply the necessary apparatus.

All further information can be obtained upon application at the temporary offices of the company, as above.

TO INVENTORS.—All INTENDING PATENTEES should PROCURE the PRINTED INFORMATION regarding PATENTS, their COST and the MODE of PROCEDURE to be adopted, ISSUED GRATIS by the GENERAL PATENT COMPANY (LIMITED), 71, FLEET STREET, LONDON.

R. MARSDEN LATHAM, Sec.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE SOUTH CROFTY MINE.

TO BE SOLD, pursuant to two several Orders made in the Causes of

Rodd v. Headland and Another, and same v. Stephens, and dated respectively the 16th day of August last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 29th day of October inst., at Twelve o'clock at noon precisely—

5 (937thas) SHARES of the defendants Francis John Headland and Edward Headland,

Executors of the last will and testament of Edward Headland, deceased; and

30 (937thas) SHARES of the defendant Hugh Stephens,

Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Plaintiff's Solicitors, Truro.

Dated Registrar's Office, Truro, October 15, 1862.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN RE CLIJAH AND WENTWORTH MINE.

TO BE SOLD, pursuant to an Order made in a Cause Pike v. Sincock

and Others, dated the 8th day of September last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 29th day of October inst., at Twelve o'clock

at noon precisely—

6 (935thas) SHARES of the defendant William Sincock.

2 (935thas) SHARES of the defendant Gavin K. Hardie.

7 (935thas) SHARES of the defendant E. T. Cook.

10 (935thas) SHARES of the defendant John Cook.

1 (935thas) SHARE of the defendant Matthew Launder; and

7 (935thas) SHARES of the defendant William Webb,

Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Plaintiff's Solicitors, Truro.

Agents for Whitford and Sons, plaintiff's solicitors, St. Columb).

Dated Registrar's Office, Truro, October 15, 1862.

Landed Estates Court, Ireland.

COUNTY OF WICKLOW.

In the Matter of the ESTATE of HENRY LAURENCE TOBIN VON USTER,

Owner; JOHN CONOLLY and WILLIAM ROBINSON FAYLE, Petitioners.

TO BE SOLD, before the Honourable Judge Hargrave, in his

Court, Four Courts, Dublin, on Friday, the 7th day of November, 1862, at noon, in

ONE Lot, the COPPER, COPPER ORE, and ALL OTHER ORES, MINERALS,

MINERAL SUBSTANCES, CLAYS, EARTHS, STONES, SLATES, ROCKS, and

ALL OTHER SUBSTANCES in the nature of MINES or MINERALS of commercial

value, whether open or unopened, which may be found to be in, under, or upon, within

or through all those the TOWNSHIPS of KNOCKANODE and RAHEENAVINE,

situate in the parish of CASTLEMACKADAM, barony of ARKLOW, and county of

WICKLOW, held under lease, dated 1st day of May, 1860, for the term of 31 years from

the 1st day of October, 1860, subject to the yearly rent of 1-18th in kind, or the value in

cash, at the option of the mine lord, and to the usual mining covenants.

Dated this 18th day of July, 1862. —HENRY FAWCETT, Chief Clerk.

OBSERVATIONS.

These mines are held under lease or licence for the term of 31 years from the 1st April,

1860, at 1-18th dues, in

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
1000 Alderley Edge (Cheshire) [L.E.]	10 0 0 ..	60 ..	..	7 18 6 ..	0 10 0 ..	— May, 1862
4300 Bedford United (copper), Taystock	2 8 6 ..	4 1/2 ..	..	12 17 6 ..	0 2 ..	— Sept., 1862
240 Boscan (tin), St. Just	20 10 0 ..	60 ..	..	30 10 0 ..	1 ..	— Mar., 1862
200 Botallock (tin, copper), St. Just	91 5 0 ..	250 ..	..	449 15 0 ..	4 ..	— Aug., 1862
1500 Curn Brea (copper, tin), Illogan	15 0 0 ..	65 ..	..	273 10 0 ..	2 ..	— Feb., 1862
200 Cofn Owain Brynwy (lead), Cardigan	33 0 0 ..	33 ..	..	9 10 0 ..	4 0 ..	— April, 1861
256 Copper Hill (copper) Redruth	48 0 0 ..	80 ..	..	60 62 1/2 ..	0 10 0 ..	2 10 0 ..
15000 Copper Miners of England	35 0 0 ..	35 ..	..	7 1/2 per cent.	—	— Half-yearly.
35000 Ditto (stock)	100 0 0 ..	100 ..	..	7 12 0 ..	0 4 ..	— July, 1862
1055 Craddock Moor (copper), St. Cleer	8 0 0 ..	26 1/2 ..	..	0 10 0 ..	2 ..	— July, 1862
512 Creigwastad and Penkewl, St. Colom	7 10 0 ..	21 ..	..	7 13 0 ..	0 5 ..	— July, 1862
867 Cwm Eirth (lead) Cardiganshire [L.E.]	7 10 0 ..	21 ..	..	0 10 0 ..	10 0 ..	— Jan., 1862
128 Cwmystwyth (lead), Cardiganshire	60 0 0 ..	200 ..	..	239 10 0 ..	2 ..	— Feb., 1862
280 Derwent Mines (all.-lead), Durham	300 0 0 ..	180 ..	..	147 0 ..	5 ..	— June, 1862
1024 Devon Gt. Con. (cop.), Tawist. [S.E.]	40 0 0 ..	40 ..	..	816 0 ..	9 ..	— Sept., 1862
358 Dolcoath (copper, tin), Camborne	125 17 6 ..	540 ..	500 550 ..	686 10 0 ..	7 ..	— Oct., 1862
3000 Dwyngwn (lead), Wales	19 15 0 ..	10 1/2 ..	..	0 15 0 ..	2 ..	— Sept., 1862
512 East Bassett (cop.), Redruth [S.E.]	29 10 0 ..	55 ..	55 ..	104 ..	0 2 ..	— Sept., 1862
614 East Cadron (copper), St. Cleer [S.E.]	2 14 6 ..	49 ..	48 1/2 45 1/2 ..	47 16 7 ..	1 ..	— Oct., 1862
200 East Darren (copper), Cardiganshire	32 0 0 ..	45 ..	..	83 10 0 ..	1 ..	— June, 1862
128 East Pool (tin, copper), Pool, Illogan	25 5 0 ..	420 ..	..	312 10 0 ..	2 ..	— Aug., 1862
2000 Foxdale (lead) Isle of Man [L.]	25 0 ..	35 ..	..	— ..	—	— July, 1862
5000 Frank Mill (lead), Devon	3 18 6 ..	4 ..	..	0 18 0 ..	0 2 ..	— Mar., 1862
6000 Great South Tolgas [S.E.], Redruth	0 14 6 ..	4 1/2 ..	4 1/2 4 1/2 ..	7 18 6 ..	0 ..	— Dec., 1861
1798 Great Wheal Fortune (tin), Breage	18 6 ..	25 ..	27 ..	2 10 0 ..	0 10 ..	— July, 1862
7008 Great Wh. Vor (tin, cop.), Helston [S.E.]	40 0 ..	6 ..	..	2 2 6 ..	0 ..	— Sept., 1862
10240 Gunnis Lake (Clitters) (lead)	0 2 0 ..	3 3/4 ..	..	0 3 0 ..	1 ..	— Mar., 1862
1024 Herodsfoot (cop.), near Liskeard [S.E.]	10 0 ..	42 ..	41 45 ..	21 10 0 ..	1 ..	15 0 ..
1000 Hibernal Mine Company	92 6 ..	27 1/2 ..	..	7 10 0 ..	0 10 ..	— Sept., 1862
400 Ilesbury (lead), Cardiganshire, Wales [L.]	15 15 0 ..	110 ..	..	387 10 0 ..	2 ..	0 6 ..
9000 Marks Valley (copper), Cardon	4 10 6 ..	10 1/2 ..	10 10 1/2 ..	2 4 0 ..	0 ..	4 0 ..
1800 Minera Mining Co. [L.], (id.), Wrexham	25 0 ..	200 ..	..	92 18 0 ..	6 ..	5 0 ..
20000 Mining Co. of Ireland (lead, coal)	7 0 ..	19 1/2 ..	..	14 7 11 0 ..	7 ..	0 6 ..
640 Mount Pleasant (lead), Mold	4 0 ..	27 ..	..	18 18 0 ..	1 ..	7 6 ..
6000 New Birch Tor and Vitter Cons. (tin)	1 6 6 ..	21 1/2 ..	..	0 3 6 ..	0 ..	1 Sept., 1861
1266 North Grangler (copper), Redruth	2 7 6 ..	6 ..	..	0 10 0 ..	0 ..	10 0 ..
536 North Treskerby (copper), St. Agnes	1 9 0 ..	4 1/2 ..	3 3/4 4 ..	0 1 6 ..	0 ..	1 Sept., 1862
2000 Ossred (lead), Flintshire	0 0 8 ..	1 1/2 ..	..	0 10 4 ..	0 ..	8 — Mar., 1862
200 Parc Consols (cop.), St. Blazey [S.E.]	1 2 6 ..	5 ..	..	92 12 6 ..	0 ..	3 0 ..
1772 Poldro (tin), St. Agnes	..	..	..	37 10 0 ..	10 ..	— June, 1862
1120 Providence (tin), Uly Lelant [S.E.]	10 6 7 ..	43 ..	43 45 ..	65 0 ..	0 ..	8 — Aug., 1862
6000 Rosewall Hill and Ransom United	2 15 0 ..	4 ..	3 3/4 3 1/2 ..	0 8 6 ..	0 ..	2 6 — Sept., 1862
16 Rhosmawr (lead)	50 0 ..	..	..	1250 0 ..	0 100 0 ..	0 — Quarterly.
512 South Cadron (cop.), St. Cleer [S.E.]	5 0 ..	410 ..	420 430 ..	388 0 ..	0 ..	5 0 ..
512 South Tolgas (cop.), Redruth [S.E.]	5 0 ..	30 ..	30 ..	92 17 0 ..	1 ..	0 — May, 1862
998 8. Wh. Frances (cop.), Illogan [S.E.]	18 18 0 ..	100 ..	100 105 ..	862 5 0 ..	2 ..	0 — Dec., 1861
12000 Tamar Con. (all.-id.), Berracliff [S.E.]	4 10 0 ..	13 1/2 ..	13 1/2 ..	45 10 0 ..	0 ..	10 0 ..
16 Tincroft (cop.), Pool, Illogan [S.E.]	9 0 ..	13 ..	13 1/2 13 1/2 ..	11 13 6 ..	0 ..	5 — July, 1862
1000 Trumpet Consols (tin), near Helston	11 10 0 ..	..	..	11 10 0 ..	0 ..	0 — Mar., 1862
4200 Vigna and Clogau (copper) [L.E.]	2 15 0 ..	27 ..	27 29 ..	5 12 6 ..	1 ..	0 — Oct., 1862
1024 Wendron Consols (tin), Wendron	11 13 10 ..	14 ..	11 1/2 12 1/2 ..	8 15 0 ..	1 ..	0 — Jan., 1861
6000 West Bassett (copper), Illogan [S.E.]	10 0 ..	12 1/2 ..	12 1/2 ..	92 6 0 ..	0 ..	6 — Sept., 1862
60 West Burton Gill (lead), Yorkshir	50 0 ..	..	..	14 10 0 ..	3 ..	0 — June, 1862
1024 West Caradon (cop.), Liskeard [S.E.]	5 0 ..	32 ..	32 33 ..	101 1 3 ..	0 ..	10 0 ..
6400 West Fowey Consols (tin and copper)	7 10 0 ..	3 1/2 ..	..	0 19 0 ..	0 ..	3 — May, 1862
1024 West Penstrial (copper)	4 0 ..	9 ..	..	2 19 6 ..	2 ..	19 6 — May, 1862
512 Wheal Jane (silver-lead), Kern	3 10 0 ..	16 ..	..	0 10 0 ..	1 ..	0 — Mar., 1862
4800 Wheal Luddett (lead), St. Ives	2 10 8 ..	13 1/2 ..	13 1/2 12 1/2 ..	2 2 0 ..	0 ..	10 0 ..
896 Wh. Margaret (tin), Uly Lel. [S.E.]	9 17 6 ..	44 ..	42 44 ..	74 5 0 ..	1 ..	5 0 ..
1000 Wh. Mary (tin), Lelant	36 2 6 ..	440 ..	..	284 5 0 ..	4 ..	0 — Mar., 1862
1024 Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 ..	14 1/2 ..	13 1/2 14 ..	56 7 6 ..	0 ..	10 0 ..
80 Wh. Owles (tin), St. Just, Cornwall	70 0 ..	300 ..	..	303 3 0 ..	0 ..	0 — Aug., 1862
396 Wh. Seton (tin, copper), Camborne	58 10 0 ..	170 ..	162 165 ..	141 15 0 ..	2 ..	0 — Oct., 1862
1040 Wh. Trelawny (all.-id.), Liskeard [S.E.]	5 17 0 ..	18 ..	15 1/2 16 1/2 ..	45 12 6 ..	0 ..	10 0 ..
5000 Wicklow (copper) [L.], Wicklow	5 0 ..	30 1/2 ..	39 1/2 ..	47 17 6 ..	2 ..	0 — Oct., 1862

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
700 Aberdovey (silver-lead), Merioneth	1 10 0 ..	30 ..	..	0 10 0 ..	0 10 0 ..	— Mar., 1859
494 Alfred Consols (cop.), Philack [S.E.]	9 8 11 ..	..	..	20 3 0 ..	0 2 6 ..	— April, 1859
256 Conduffor (cop., tin), Camborne	35 0 0 ..	65 ..	57 1/2 62 1/2 ..	85 0 ..	0 2 ..	0 — June, 1857
2450 Cook's Kitchen (copper), Illogan	17 0 9 ..	26 1/2 ..	31 32 ..	1 7 0 ..	0 ..	7 0 ..
4076 Devon and Cornwall (copper)	5 16 3 ..	..	..	0 10 0 ..	2 6 ..	— Feb., 1859
672 Ding Dong (tin), Gulvin	40 15 6 ..	4 1/2 ..	..	16 7 6 ..	1 ..	10 0 ..
22800 Drake Walls (tin, copper), Tavistock	2 1 0 ..	1 ..	1/2 1 ..	0 15 0 ..	0 ..	1 June, 1862
2048 East Wheal Lovell (tin), Wendron	2 13 6 ..	..	..	0 5 0 ..	0 ..	5 — July, 1859
4940 Fowey Consols (copper), Tywardreath	4 0 0 ..	5 ..	..	41 9 3 ..	0 ..	2 6 — June, 1860
119 Great Work (tin), Germoe	100 0 ..	110 ..	..	221 10 0 ..	7 ..	10 0 ..
5950 Kelly Bray (lead, copper), Callington	15 4 6 ..	..	..	0 6 0 ..	0 ..	2 — Feb., 1857
20 Laxey Mining Company, Isle of Man	100 0 ..	1200 ..	..	1420 0 ..	0 50 ..	0 — June, 1857
160 Levant (copper, tin), St. Just	2 10 0 ..	95 ..	..	1091 0 ..	0 5 ..	5 0 ..
470 Newtowndown Mining Co., Co. Down	50 0 ..	35 ..	..	56 8 0 ..	0 ..	10 0 ..
6000 North Downs (copper) Redruth	2 3 4 ..	31/2 ..	31 1/2 31 1/2 ..	0 10 0 ..	0 ..	2 6 — May, 1862
123000 Portridge Con. (cop.), Whitchurch [S.E.]	0 16 0 ..	..			